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- UK games boom
- PC Engine hand-held
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- 'Turbo ROM' arrives

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CPC • XE • PCW
SPECTRUM • QL

SPECIALIST COLUMNS

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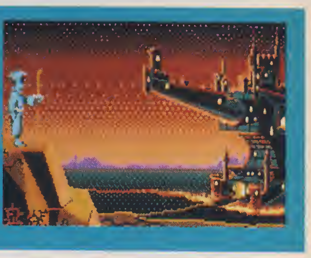
1989's InDin award winners reveal their plans for the year ahead – page 60



WRAPS OFF CD AMIGA

Commodore's startling secret revealed – page 3

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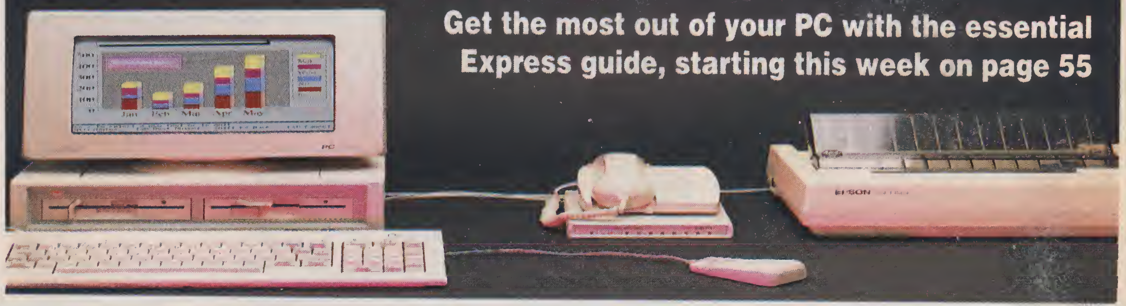

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NEC strides into hand-held arena with PC Engine

HAND-HELD ENGINE WOWS LAS VEGAS

A hand-held version of the PC Engine is to be launched by manufacturer NEC. It was shown for the first time at the American Consumer Electronics Show (CES) in Las Vegas, Nevada, last week.

The LCD colour machine comes with a three-inch screen and incorporates the same technology as the PC Engine itself. The PC Engine's wafer-like cartridges will run on the hand-held.

The mini-Engine weighs less than one pound but is slightly larger than the Atari Lynx. It will be launched in the US with a price tag of $199 within six months. No UK launch has been announced, although imports can be expected to arrive in the UK before the end of the year.

The machine has been developed by two ex-employees of Epyx, which originally produced the Atari Lynx. It boasts 'superb scrolling' in the same mould as the PC Engine, and comes with a built-in loudspeaker.

NEC is looking at the possibility of offering the machine with a tiny television tuner which will effectively turn it into a pocket television set. That will cost an extra $50.

Also, a video output port is being considered allowing players to link the console to their television sets.

One drawback of the hand-held Engine is its short battery life. Currently the batteries last just three hours of continuous play per set. However, NEC says that the problem will be rectified before the official launch.

There is also a comms port allowing play between anything up to eight machines simultaneously. ▩

• *PC Engine: hand-held displayed at CES*

• *Atari's Lynx colour hand-held: head on with the Gameboy*

Lynx versus Gameboy: the battle begins

Despite the excitement generated by NEC's machine (above), both Atari and Nintendo have reason to be bullish about their respective Lynx and Gameboy hand-held games consoles.

Nintendo claims to have sold one million of its $90 black-and-white Gameboys during the last six months, with sales forecasts of five million for 1990.

Atari's Lynx is more expensive at $180 and projections are therefore somewhat cautious. However, the firm says it sold out of 70,000 of the colour machines at the end of last year – all of which were bought in the New York area. Following the 'test exercise' Atari reckons on sales of one million hand-helds this year.

Both machines are available here through importers, but official launches are likely later this year. Many predict the manufacturers will choose 'pounds for dollars' prices when they release their machines into the UK.

• *A head-to-head look at the Lynx and the Gameboy, and their software, appears in next week's Express.*

• *One of the visitors to CES was Michael Jackson, who is apparently something of a games fan.*

Jacko got stuck into a Sega Megadrive and announced that a new game based on his movie Moonwalker would be launched for the machine. Such a game already exists for home computers courtesy of US Gold. ▩

Movies on disk plan

NEC, manufacturer of the PC Engine console, has taken a minority shareholding in US software publishing outfit Cinemaware, with a view to producing interactive movie games, *writes Ian Burley*.

With the extra funding Cinemaware will be producing computer games based on real video footage. The CD-based games will incorporate high quality sound with pre-recorded video scenarios portrayed by actors. The first CD Cinemaware game will be *It Came from the Desert*, recently launched on floppy disk for the ST and Amiga.

However, the final product, likely to be launched for the Super Graphx (the PC Engine 2) will be entirely different from that seen on 16-bit computers.

In the video game, players will be given a simple option, then the video footage will run on depending on the chosen action. This will come in bursts of a few seconds. It will also be combined with computer-generated graphics.

Cinemaware, which has already produced games such as *Defender of the Crown* and *Rocket Ranger*, has been talking about 'interactive movies' for the past few years and has always said it was only waiting for the proper technology and adequate funding to come along.

It Came from the Desert is based on Fifties horror movies and features giant ants and other nasty creations. ▩

• *Tens of thousands of visitors from all over the world thronged to the CES show last week*

CES: What it's all about

The Consumer Electronics Show drew 100,000 visitors to Las Vegas, all intent on seeing the latest in high-tech entertainment products.

Some 1,400 exhibitors were there to show off the newest and best in audio, televisual, photographic, computer and video products.

It ran for four days at the beginning of last week and added an estimated $70 million to the Las Vegas coffers.

The summer show is due to be held in Chicago this June. ▪

• ***Las Vegas Consumer Electronics Show reports filed by Dave Roberts and Stuart Dinsey (CTW) with Ian Burley (Micronet).***

CALL UP

• *In 10 years' time you'll be wondering how you ever lived without such a gadget. It's the latest in colour video telephones from Odae. Not surprisingly, it's horribly expensive but it is capable of all manner of whizzo functions such as storing video conversations in memory and transferring the recording to another party at a pre-set time.*

Also on display at CES for the first time was the amazing holographic television. Inside a large, sideways-slanted black bowl were holographic 3D images of a ballerina and some fish swimming around. Incredulous watchers amused themselves by putting their hands through the futuristic image. ▪

Commodore tight-lipped about dream machine

SECRET CD AMIGA DETAILS LEAK OUT

By DAVE ROBERTS

An Amiga games machine based on CD-ROM technology is to be launched by Commodore.

Highly-secret plans have been laid for a keyboard-less Amiga due to be shown for the first time this summer. At the Consumer Electronics Show in Las Vegas last week, Commodore's closest business partners were allowed a sneak preview of a prototype of the console.

However, few people have seen the machine and all have been obliged to sign a restrictive non-disclosure agreement prohibiting any communication with the press or Commodore's rivals.

Commodore is known to have been considering an Amiga console for more than a year (*Express* 1), but details of the machine remain scant.

Neither US nor British Commodore officials are prepared to comment on the machine at present. Indeed, full technical specifications, price and launch dates have yet to be finalised.

When the machine arrives it will be paraded as the ultimate games machine, comparable only to NEC's recently launched PC Engine 2, the Super Graphx.

Commodore is currently talking to leading software publishers with a view to developing games pressed onto CD format. The control will be based on remote control joypads such as that recently launched by Nintendo.

Commodore's major problem with the Amiga Compact Disc Console (already dubbed the 'AC-DC') lies in pricing the machine. Given the cost of the technology, early buyers must be prepared to spend up to £500. But the firm is hoping that the price of emerging CD technology will drop in the near future, giving its games machine true mass appeal within three years.

The public is expected to be given a first look at the CD Amiga this June at the summer CES in Chicago. ▪

• *Dave Roberts is deputy editor of Computer Trade Weekly.*

Commodore
Commodore
PC SERIES
AMIGA

• ***Commodore's presence at CES was minimal. But the firm was secretly courting software developers with its keyboard-less Amiga***

Sega games boom to follow UK deal

SEGA
The Sega Master System
THE BEST 8 BIT SYSTEM, GREAT NEW GAMES, NEW LOW PRICES
WANTED
GAMES

• ***Sega's display at the Las Vegas CES. New deals with software companies should ensure a good supply of software for the Megadrive.***

Sega owners can look forward to an increasing number of games following a new deal signed between the console's manufacturer and a number of leading British software houses.

US Gold, Titus and Grandslam have been commissioned to convert some of their most successful computer games onto the Sega format. In the past Sega games have all been sourced from Sega itself, limiting the number of releases.

Sega is also understood to be in negotiation with Mirrorsoft and Virgin – which distributes the console in the UK.

Because of the time it takes to convert games to the Sega there won't be any releases until the autumn. First out will be *Gauntlet* (US Gold), *The Flintstones* (Grandslam), and driving shoot-'em-up *Fire and Forget* (Titus). Sega has stipulated that the three software houses produce 10 games between them before the end of this year. It is understood that *Paperboy* and *Indiana Jones* will be among those titles.

Sega is also looking at the possibility of finding writers for its Megadrive machine. Its official launch is pencilled in for September and the company wants a minimum of 20 titles by then.

The firm says it aimed for a European user base of one million before making any third-party deals. It expects that this figure will be reached by the end the year. ▪

Sprite Editor
MIRROR
SLIDE
PEN
COPY
EXIT
FLOOD
UNDO
DESTIN
SPRITE

• **SEUCK:** *loading flaw*

Palace admits SEUCK flaw

Buyers of *Shoot-'em-up Construction Kit* (*SEUCK*) for the ST have been warned about a mistake in the program which prevents it loading.

Publisher Palace says a last minute foul-up in the duplication of the program has meant that the method of loading is different from that stated in the manual.

The manual instructs users to switch on their ST, insert the disk and then click on a specific icon. However, users have found that no such icon exists on the screen. Palace says it has received a string of calls from confused buyers.

However, the firm has pointed out that the oddity is easily rectified. The program will run perfectly if you switch off the machine, insert the first disk, then switch on the machine and let it autoboot from the disk.

Palace says the problem only applies to the first batches of *SEUCK*, and that future copies will be made to comply with the manual. *Shoot-'em-up Construction Kit* allows people with hardly any knowledge of programming to design their own computer games. Palace is on 01-278 0751. ■

Czech speller for PCW

The PCW is moving with the times and into Eastern Europe with a purpose, *writes Tim Smith.*

A Czechoslovakian-styled keyboard has been developed by Munich-based computer dealer Thomas Weidmann for the Amstrad machine and is being shipped across the border.

It appears that the newly-democratised Easterners are so keen on *LocoScript* and the Amstrad PCW that they will even pay for standard British PCWs if they can't get hold of any with the new Czech keyboard.

Weidmann told *Express*: "The changes in the economic situation in the Eastern bloc, combined with the friendliness and relatively low cost of the PCW make it an ideal buy for Czechs as well as East Germans".

Amstrad has announced that it will be producing a PCW with a cyrillic keyboard for the Russian market, which it sees a a major growth area for the company (See *Express* 61).

If you would like to be the first person on the block with a new Czech-look PCW then call Thomas Weidmann on 010 49 89 965020. ■

Survey highlights lax attitude to hackers

BUSINESS PC USERS LACK SECURITY

British businesses are careless with their computer data, according to report published last week.

In the survey, based on over 200 businesses, it emerged that 75 per cent of companies admit to losing data, with 25 per cent still not backing up their work. Only 20 per cent of businesses say they back up work at the end of every day with 50 per cent undertaking the crucial operation once a week.

Half said they do not have the technical know-how to recover lost data after a hard disk fault or power failure. But nearly 30 per cent say they can recover data in-house if disasters occur.

A staggering 73 per cent say they have no idea whether or not their systems are infected with viruses or logic bombs; only 27 per cent run virus checkers regularly.

Almost 70 per cent don't know if their computers contain unauthorised software. Just over 30 per cent scrupulously check whether or not any copied software has crept into the office.

Three-quarters of those questioned were not confident that their systems are 'hacker-proof'.

In all 37 per cent of businesses said data security is 'essential' with less than 10 per cent regarding it as unimportant.

The survey was conducted by British PC manufacturer Opus which has recently launched the DataSafe security PC. The machine comes with two hard disks, one backing-up the other. It is also designed to keep hackers out. ■

SPEED
SECURITY
INTEGRITY

• **Safe data:** *Opus prompted security survey*

CD-ROM added to low-cost Archimedes

Acorn is planning to launch a CD-ROM drive for its BBC A3000 machine.

The drive will be shown for the first time at this week's British Education Training Technology show – the year's premier event for educational computing.

Acorn preferred not to comment on the price of the CD-ROM but it is claimed to be "cheaper than anything else from our main competitors in the education sector".

The drive was developed in conjunction with neighbouring Cambridge firm Next Technology. "They really specialise in the CD-ROM area," offered an Acorn spokesman. "The drive will be very much focussed on education which is a key area for Acorn. We think there's a lot of future in CD-ROM."

The drive will come with a disk containing a series of audio and visual samples. It will be fully compatible with all mainstream CD-ROM disks.

The BETT shows runs until Saturday (January 20) at the Barbican Centre in London, and is mainly aimed at professionals in the education technology market. ■

• **A3000:** *Into the CD age*

Get a grip on your Sega

A new control yoke has been launched for the Sega games console.

Costing £29, the Handle Controller can be used to gain control on those tricky flight and driving games. It will run on big-name games such as *Out Run, Thunderblade* and *Afterburner*.

The Handle Controller is the latest in a line of Sega accessories which include 3D glasses and a light gun. Distributor Virgin Mastertronic claims that there are now more then 200,000 Sega owners in the UK. The new Controller will be available by the end of this month. ■

Handle
Controller
SEGA

• **Handle Controller:** *driving force*

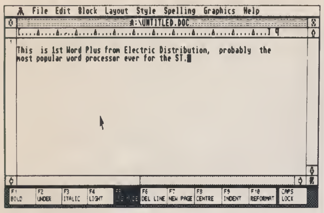
Three years for on-line bomber

An 18-year-old has been jailed in the United States for running a bulletin board which promoted the use of explosives.

David Overeem was last week jailed for three years for his involvement in the on-line service Pyromaniac Productions. The bulletin board featured 'recipes' for home-made bombs.

According to Associated Press, he was convicted for his part in a bombing which was intended to frighten a 17-year-old girl.

Overeem was a member of a group calling itself Damage Incorporated. ■



This is 1st Word Plus from Electric Distribution, probably the most popular word processor ever for the ST.

• First Word Plus: *STE problems*

STE: not the write stuff

Following STE incompatibility problems with top games (*Express* 62) it now seems certain that business packages will also be affected.

GST Software Products says it has been receiving curious reports concerning its popular word processing package *First Word Plus*. Apparently, STE owners using the program have come across a whole host of odd bugs. Some have said they type in certain letters from the keyboard only to find different characters appearing on the screen.

Lynn Evans at GST commented: "We've been hearing these reports and we've got hold of an STE from Atari so we can start testing our products. We want to get to the bottom of this as soon as possible."

Super storage

IBM's researchers have developed a hard disk capable of storing a billion bits of data per square inch – that's enough space to keep you reading the text files it could hold for the next 800 years!

The 5.25-inch magnetic disks store data at densities 15 to 30 times higher than previous systems and incorporate an ultra-thin uniform coatings combined with a disk head able to track only 0.05 micrometres above the disk's surface.

Although IBM doesn't expect to begin shipping units for several years, it hopes to counter the market attack from optical disk systems. Once in production a single new disk will be capable of storing over 200,000 versions of the New Testament, or all the copies of *New Computer Express* for the next 113,000 years or so.

Xenon, run by a 17-year-old, ceases trading

YOUTH'S MAIL ORDER FIRM CRASHES OUT

A mail order company which was run by a 17-year-old youth has gone bust with substantial debts.

Portsmouth-based Xenon Technology's books are currently being 'sorted out' by accountants who say any money left in the coffers will be used to reimburse customers who have sent money in and not received goods. However, people will have to expect to lose money.

According to Kingston CID in Portsmouth, the 17-year-old boss of the company, Stephen Lee, had "cocked up his business". The police say they know of no criminal intent, although they are waiting for the accountants to finish going through the books.

"If the accounts suggest that he has done something wrong then we will investigate," explained a police spokesman. "But he seems to have kept well-organised books."

Lee's father is currently sending out letters to those people who are waiting for goods and have sent money in. According to Lee, cheques and postal orders sent after December 24 will not be cashed.

The police are advising anyone who has sent money to Xenon to 'sit tight' and hope for the best. They say Lee's business floundered when stocks failed to turn up on time causing a serious cash flow problem.

Trade customers are said to be 'very angry' – Lee is too young to be declared a bankrupt, and it would also prove difficult to sue him.

WHAT TO DO

• If you sent a cheque after November 24, Xenon says it will not cash it, but due to accountancy problems it will not be sent back. You are advised to contact your bank and cancel the cheque anyway.
• Postal orders and cash sent after December 24 will be returned. Contact Xenon if you're still waiting.
• If you sent cash, a cheque or a postal order before December 24 and you have not received your goods, contact Xenon on the address below. You will probably receive an explanatory letter. Don't be overly hopeful of full reimbursement.
• Do not order anything from Xenon.
• The address is Xenon Technology, 71 Wadham Road, Northend, Portsmouth PO2 9ED.

• *Larry: he's back*

Naughty bit

Remember Leisure Suit Larry? Now the medallion-clad swinger and frequenter of singles bars has returned for his third adventure.

Leisure Suit Larry 3 (or *Passionate Patti in Pursuit of the Pulsating Pectorals*) offers you the chance to experience 'the thrills of being the lounge lizard' as well as the chance to take on the role of Larry's object of desire, Patti.

Activision's new game is very 1990s and, er, sexy. It comes with a built-in trivia test designed to keep innocent kiddies off the lewd levels.

PC owners can go out and buy the game now; ST and Amiga owners will have to wait a few months. It costs a hefty £44.95.

Dalai Lama goes on-line

Nobel peace prize winner the Dalai Lama is to be linked to a new electronic mail system which aims to further his quest for the liberation of Tibet from China.

The system is to be set up next month at the Dalai Lama's headquarters in Dharmsala on the western side of the Himalayas. It is hoped that the on-line system will allow conferences to take place around the world based on, and in support of, the Dalai Lama's non-violent liberation movement.

The network is being directed by System Enhancement Associates and will be called TibetNet. ■

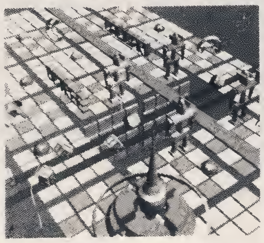
Intuitive 3D design package for the Amiga

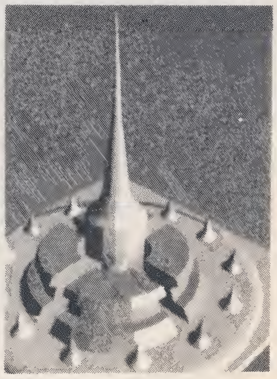
Amiga 3D graphics packages have traditionally been a pig to work with, but *Caligari* from Octree Software could be the one to change all that, *writes Jason Holborn*.

Caligari is a 'Conceptual 3D Design' package for any 1Mb Amiga that provides a totally new design of user interface to provide true real-time display of the 3D universe within your computer. *Caligari* offers real-time response allowing the user to move and modify 3D objects directly in true perspective, simply by selecting the object to be manipulated with the mouse pointer. During editing, the 3D objects are displayed as a wire-frame representation, but can be rendered into solid 3D, complete with light sources and colour.

Objects are created using simple building blocks (such as spheres and cubes) which can be combined and manipulated. Octree claims that *Caligari* requires virtually no previous user knowledge of such things, as the motion of the user's hand manipulating objects within the 3D view mimics the motion of the hand manipulating similar objects within the real world.

Ray tracing fanatics can import *Caligari* objects straight into drawing packages such as *Sculpt-Animate 4D*.





• *Caligari*: interface mimics the human hand

Apple denies copyright fraud charge from Xerox

Apple has denied charges that it derived its popular graphical user interface for the Macintosh from programs created by Xerox in the late 1970s.

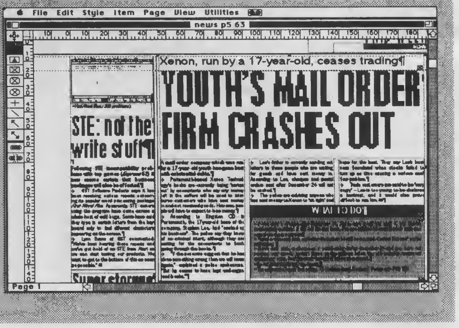
The firm has asked a California-based Federal judge to to dismiss Xerox's $150 million lawsuit 'with prejudice'. Earlier this month Xerox charged Apple with copyright fraud alleging that the firm had taken its user-friendly basis for the Mac from software developed by Xerox.

Xerox's and Apple's development centres were based next to each other in California's Silicon Valley at the end of the 1970s.

Apple has said that it was inspired by Xerox's work when it created the mouse-driven icons and menus environment, but says its engineers created their own software completely independently of Xerox.

Apple is already in heated dispute with Hewlett-Packard and MicroSoft over the rights to certain elements of the graphical user interface. The past few years have seen many companies imitate the Macintosh's user interface and the disputes centre around confusion over whether Apple can claim rights to such a broad-based idea.

The computer industry as a whole is watching the tangled Apple affair with great interest since it will set a precedent for future 'look and feel' cases. ▨



Xenon, run by a 17-year-old, ceases trading¶

YOUTH'S MAIL ORDER FIRM CRASHES OUT

STE: not the write stuff¶

WHAT TO DO?¶

• User-friendly: more litigations over Apple's interface (right)

Computer helps AIDS research

In a world-wide attempt to control the spread of AIDS, the Medical Research Council has commissioned a national database which will store vital information on many strains of the virus, *writes Jerry Glenwright*.

ARIEL (AIDS Research Information Exchange Link) has been developed over a six-month period by the National Institute for Biological Standards and Control using a Sun 3470 workstation and the Oracle database manager.

The MRC is planning to spend £400,000 over the next five years garnering results from the 150 laboratories around the UK currently involved in AIDS research. Scientists will have instant access to information detailing all aspects of AIDS.

Dr Monica Jordan, head of computing at the National Institute, predicts that ARIEL will soon become indispensible to AIDS research projects and scientific meetings.

"It is quite a different database project to most", said Dr Jordan, "But the data we keep will help anyone involved in AIDS research, and we expect the amount of information it holds to increase rapidly."

ARIEL will also have links to other AIDS databases in the World Health Organisation, Western Europe and the United States.

The Medical Research Council expects ARIEL to begin its valuable work by the end of February. ▨

Computer killers claim

Death squads are reported to be roaming around the Soviet Union murdering people for their computers.

According to the *Today* newspaper computers are so valuable in Russia that thieves will stop at nothing to get their hands on a machine. A particularly desirable item is apparently the Amstrad PCW.

A spokesman for the Soviet embassy in London said he knew nothing of such a violent trend. Mikhail Gorbachev was unavailable for comment at the time of going to press. ■

Driving games voted tops by Christmas buyers

OCEAN CELEBRATES CHART TOPPER

As was widely expected, Ocean's driving game *Chase HQ* has scooped the prestigious Christmas number one spot.

It was way ahead of the competition – *Batman* (also from Ocean) made second place while *Ghostbusters II* from Activision came third.

The overall 16-bit number one was Domark's *Hard Drivin'*, with *Chase HQ* taking first in the 8-bit stakes.

For the first time in years, compilations fared poorly. Only one featured in the all-formats top 40 – Ocean's *100 Per Cent Dynamite*.

Old games did particularly well. Budget affairs *Ghosts 'n' Goblins*, *Buggy Boy*, *Fantasy World Dizzy* and *Predator* made the top 20, with *Paperboy* at number 4.

Last year's number one *Robocop* managed to stay in at number eight.

Driving games were the most popular type of game. Apart from *Chase*, *Hard Drivin'* and *Buggy Boy*, there was *Power Drift* (12), *Crazy Cars* (16) and US Gold's *Turbo Out Run* (5).

Others in the top 10 were Ocean's *Untouchables* (6) and *Ghouls 'n' Ghosts* from US Gold (9).

Chase HQ was predicted as the Christmas '89 number one by *Express* 14 months ago. ▨

THE TOP 10

1	**CHASE HQ**
2	**BATMAN**
3	**GHOSTBUSTERS 2**
4	**PAPERBOY**
5	**TURBO OUT RUN**
6	**THE UNTOUCHABLES**
7	**HARD DRIVIN'**
8	**ROBOCOP**
9	**GHOULS 'N' GHOSTS**
10	**OPERATION THUNDERBOLT**

SOMETHING'S COOKING

Seiko Instruments
KITCHEN WHIZ
SII
Food Preparation/Conversion Computer
0 5/8
C/CE
MC
MR
M−
M+
7 8 9 ÷
4 5 6 ×
1 2 3 −
0 . = +

• This handheld computer (above) allows confectors of comestibles to cobble together culinary creations in the kitchen, writes Colin Campbell.

Called the Kitchen Whizz, it allows you to work out how to put meals together with mathematical precision. You can add up bills, work out weights and measurements and calculate portion sizes for dieters. It costs $20 in the US and comes from Seiko Instruments. ▨

TV computer history show

The story of the computer is the basis for a multi-million dollar new television production due to be screened in 1991.

Information Age is being put together by Boston-based network WCBH. It will trace the great leaps forward over the past 20 years as well as the home computer revolution, the great inventors and the work that was done in the Fifties.

Henry Bector, president of WGBH commented: "The story of the computer is much more than the history of a machine. It's a fascinating tale of innovation, imagination and genius – it has the makings of compelling television." *Information Age* will cost approximately $4 million to make. ▨
(Newsbytes USA).

• *Megadrive: bank on it*

Megadrive grows up

A new way of banking from home has been introduced in Japan, based on Sega's 16-bit console the Megadrive.

The console will be used as a home terminal for customers of Tokyo-based Hyogo bank. They will be able to check balances, make remittances and obtain bank data such as fund transfers.

The Megadrive will be linked by modem to a sophisticated network – the scheme is being called Mega Answer System. Sega is already working on a similar home shopping project which will allow people to make buying decisions from their living room.

Everything on the console will be based on a simple multiple-choice windows environment. No-one at Sega's UK distributor Virgin Mastertronic was able to say whether such a scheme would be introduced to the UK.

However, Nintendo in the US has already announced skeleton plans for a home business and banking network based on its console. In Britain, founder of Acorn Chris Curry is still working on his promising home shopping system Keyline Shopping. ▪

Turbo ROM from Acorn

Acorn's ageing BBC Master 128 machines are being updated with a brand new ROM set, available as an upgrade for £39.

The main innovation of the new ROM is the capacity to handle extended alphabets making it particularly suitable for foreign languages. Also included is an improvement in floppy drive access speed and full use of additional 6502 second processor memory. Acorn is on 0223 245200. ▪

Mini Minitel arrives

Following in the footsteps of French company Minitel's initiative, Applied Telematics is giving away free 1200/75 baud videotext terminals to companies using its on-line Routel service.

Although the system is currently limited to shipping and freight information, the company is hoping that in conjunction with its partner, magazine publisher Maclean Hunter, the service can eventually be extended to cover more diverse database information. AT is on 0892 511000. ▪

'Take on new technologies' urges Howard

MINISTER: COMPUTER WORKERS NEEDED

Michael Howard, the newly-appointed Secretary of State for Employment, has called for more people to learn about computers and to become computing professionals.

Howard says the shortages of skilled computer operators and information technology workers will be one of the worst problems facing his department over the next few years. He has urged those people looking for secure employment to "tackle the challenges of new technologies and make the most of new opportunities".

"Skill shortages in London, the Midlands and the North are causing concern," he said. "There are facilities for computer training already and these are being added to. Please take advantage of them."

He pointed out that, apart from engineering, computers and IT have the worst skills shortages. "It is important that everyone who can should be properly trained and qualified to work effectively in the demanding world into which we are moving."

At the Computer Services Industry Training Council, director Gordon Ewan told *Express*: "This Government believes that free market forces will prevail and that when it gets painful enough, companies will start to invest in training. Unfortunately we're not seeing that at the moment.

"There are Employment Training schemes and the YTS program laid on by the Government, but it's no secret that they're aims aren't really to produce highly trained workers. Companies need to start investing."

It has been estimated by the National Computer Centre that there is a 30,000-person shortage of 'systems development staff'. The NCC predicts that figure will be 100,000 by 1992. ▪

• **Howard: computer training call**

STeve the Slav wonder

One of the first ST software packages to be born from Eastern Europe is *STeve* – or *ST Event Editor* – programmed by Yugoslavian Primoz Jakopin.

STeve is being touted as an 'everything' program, a huge parcel of integrated applications including a word processor, spreadsheet, database, image processor (including scanner) and terminal emulator. *STeve* is so big it has a 600-page accompanying manual.

With over 1,000 users already in Yugoslavia, Jakopin hopes that the program will be his ticket to world-wide fame and fortune.

STeve can be customised by users via the 30 modifiable system tables. For more information about *STeve*, contact Primoz Jakopin at Trnovska 2, 61000, Ljubljana, Yugoslavia (Telephone 010 38 61 226329). ▪

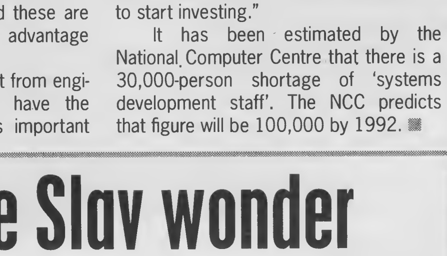
Strains on the mains

Last month's power cut in central London, which passed without any media coverage whatsoever, may have resulted in thousands of computers losing their valuable data forever.

Ironically, the cause may have been the computers themselves. Recent US research has shown that the enormous number of computers drawing power is putting huge strains on electric supplies throughout the world and is leading to more random power cuts.

Such disasters, along with sags, surges and spikes, are avoidable though by using uninterruptible power systems. A leading supplier of these, Emerson Electric, has announced a new low-cost model for PCs which provides up to 20 minutes of emergency back-up power for £156 – less than half the price of previous devices.

Emerson is on 0793 512669. ▪



• *Back-up: beat the power cut with Emerson's power supplies*

U.S. MARSHAL
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• ***What has federal prisoner 41586004 got to do with computers? A US software house is reported to be working on a computer game based on the US invasion of Panama and featuring 'Pineapple face' Noriega.***

Called Find Noriega the game is based on a US marine's search for the dictator. The strange gameplay takes the marine all over the US and Central America in search of the General. At one stage in the game Noriega is hidden in Graceland, disguised as – you guessed it – Elvis Presley. ▪

COMMENT

Companies such as NEC don't spend millions of dollars on consoles just to bump up credibility – they smell money...

Those computer owners who are fond of looking down their noses at games consoles are in for a nasty shock. In the first month of the decade all the major manufacturers of these little boxes have revealed a strong desire to up the stakes in the console game. They are launching products with breathtaking ingenuity – based on entertainment multimedia, video-sequencing and compact disc technology.

Ironically, this month also sees the availability of the first home computer to be launched in years – it is the Coupé, based as much on technology which was around at the beginning of the last decade as anything cobbled together at this most-recently passed end of the Eighties.

With so much activity surrounding consoles, it is worth taking the opportunity to reflect on the fading fortunes of the games console in Europe during the 1980s, and the incredible boom which will typify the 1990s.

TRADITIONAL

As part of the wider picture, it has been traditional for families in Western Europe to look upon the home computer as an investment for the future – a way of preparing the youngsters for the impending horrors of a cyber age while keeping the adults in touch with the somewhat baffling emergence of new technology.

This traditional mindset has been all but tossed aside in recent years – tossed aside in favour of a new realism. People have decided that the machines were not so baffling after all. What is more, so many of us use computers at work and at school that the function of a home computer as insurance against ignorance has been all but nullified. Instead the machine has become a virtual necessity.

There has been a diversification between the favoured uses of the computer so that every member of the family may view it as a completely different tool. Indeed, the perception that the family needs just one computer is no longer relevant. Older members find that the PC suits their problem-solving and information storage needs. There may be a C64 or Speccy hanging around as well as a games machine for youngsters. Perhaps a portable for professionals and a hand-held to boot.

In this context, however, it is the people who see computers as games machines which count.

In the next few years they will be given the opportunity to buy something like the new hand-held PC Engine which can be plugged into the TV (or turned into a TV). They will be offered huge games based on compact discs which feature wonderfully clear sounds and graphics merged with real video sequences and improved depth of gameplay.

This winter's Consumer Electronics Show has shown this to be a reality. Companies such as NEC don't spend millions of dollars on emerging entertainment products just to bump up their credibility —they smell money.

The likes of Nintendo, NEC, Sega and Commodore are launching new products with Europeans in mind. "Europe's where it's gonna be at" was to be heard echoing off the lips of thousands of businessmen at CES.

There are also rumours that the usually-distant NEC might act on a feeling that the PC Engine could be launched in Europe rather than just left for our opportunistic importers.

CRITICISMS

There are still relevant criticisms to be levelled at consoles. They lack any serious function, for example.

Well, up to a point. Both Sega and Nintendo are looking at ways to widen the scope of console usage. Soon you will be able to log onto your bank and check out the balance, order theatre tickets and do your grocery shopping all from the living room. This with technology not much more sophisticated than that possessed by current consoles.

Where the keyboard is not necessary, it will be dispensed with. People enjoy windows and menus and multiple choice. It is simple. It is almost impossible to find a joypad confusing.

There have also been suggestions that the more sophisticated games won't transfer well to consoles. Thus far most console games have been simple affairs designed to test agile fingers rather than nimble minds. However, there are few computer games which cannot be transferred to a games console, with the reliance shifted from keyboard commands to icon-driven play.

As the average age of console gamers edges up over the next few years, we will begin to see console-specific games emerge. Sega has wisely decided to drop its somewhat arrogant policy of ignoring computer games and has signed up British software houses to write their most successful games for the console.

It has also been suggested that the success of machines such as the Speccy, C64, ST and Amiga, and their diversity, has kept the consoles down.

WANTING

But a new generation of games will test even the greatest keyboard machine, and they will be found wanting. The keyboard-less Amiga with compact disc will make the Amiga of today seem aged and cumbersome.

There are no new home computers to look forward to which will be able to generate the kind of excitement and the sense of expectancy which we are seeing surrounding the further development of consoles.

Machines such as the Amiga and ST can do so much more than any games console but ultimately, who cares? Certainly not the millions who will happily forgo such capability for state-of-the-art gaming.

Thus, if you what you want to do is to play games exclusively, you will look first to the consoles. ■

SHOOT FROM THE LIP

"Ten years from now Unix will be the largest single embarrassment in the computer business." ***Bill Pioduska, founder of Prime and Apollo*** **(Computer Weekly).**

"Twenty years from now your TV set will probably have 50 megabytes of random access memory and run at 40 to 50 MIPS. It'll be basically a Cray computer." ***Nicholas Negroponte, director at Massachussetts Institute of Technology*** **(The Guardian).**

"My new year's resolution is to be more pessimistic in my forecasts." ***Bob Gleadow, Atari UK boss.***

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A GUY NAMED ROGER DEAN AND HIS GRAPHICS

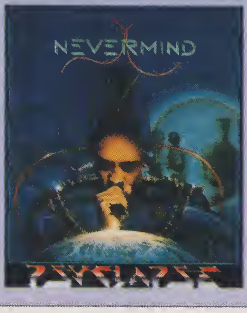
Nevermind is a cunning little game based around a chequered board, where you have to pick up pieces of a picture and return them to their proper positions.

Indeed, *Nevermind* is another release from Psygnosis, which automatically means superb graphics, some of which were created by a guy who calls himself Roger Dean.

For those who have listened to *Yes* or the albums of Dave Greenslade in the early Seventies, Dean's work will be familiar. He was the creator of so many SF-based fantasy worlds on rock disk sleeves that his designs became very nearly synonymous with techno-rock.

Computer games were then still ten years away, of course, but they were inevitable as computer technology gained momentum, and when they did appear, they must have seemed heaven-sent to Dean's air-brush and outlandish imagination.

The Psyclapse logo itself, used for Psygnosis's brand of mind games, is a Dean creation and he has the style and originality to be filled with useful ideas. His is really nice stuff.



• *(Left)* Nevermind: *graphics*

TI MICROLASER

Desktop lasers seem to be the flavour of the moment, with Texas Instruments the latest to add its weight to the idea. The microLaser is a Hewlett Packard Laser Jet Series II compatible printer with an upgrade available to full Adobe PostScript. I say Adobe as there are more and more PostScript lookalikes around now.

The spec of the printer seems to cover most eventualities pretty well, and the cost of the base machine plus upgrade is no more than the straight PostScript version – so you don't lose out by buying in two stages.

The printer uses a Sharp engine, which is unusual, and comes without a serial interface as standard, which is more so. A 250-sheet feed tray slides right into the machine but can still handle letter, legal, half-letter, A4, B5, executive, transparencies, and label sizes.

The LCD front panel display has 16 characters, twice that of equivalent personal lasers from HP and Canon. With an envelope 360mm x 340mm x 267mm and a base price of £1,435, it could prove to be the most accomodating of the new breed of lasers. The PostScript upgrade, including 1Mb of extra memory (can you really run PostScript in 1.5Mb?) costs £1,060. TI is on 0234 223505.

• *The latest from TI: personal, affordable*

LIMP STICK

With the commission of my first games review on the PC the other day, it suddenly became necessary to fit a joystick to my trusty Datamation 386. Not having a multi-function card, this involved a trip to the local dealer, who was well-stocked enough to have the same Lindy kit I had checked out in a mail-order catalogue. The advantage was that I could have it in half an hour. Good things, dealers.

What I ended up with, though, is a limp joyless thing. This isn't to say anything against either the dealer or Lindy – it's the best you can do with the stupid analogue games port IBM designed into its original PC.

The choice of analogue input means that the joystick can't use micro-switches for the eight direction control needed in most games. Like the good old BBC Micro, it has to use variable resistors, the kind of thing used in volume and tone controls on radios.

Built into a joystick these might be great for flight simulators, which can react proportionately to the movement of the stick from the centre position. In the majority of games, though, this particular stick feature feels like playing with a mechanism connected in a bed of wet sponge – no, make that dry sponge.

The other, more minor annoyance, is that a game can't assume your stick will be geared to the limits of sprite movement on the screen. Most IBM joysticks come with trimming potentiometers to set the zero to screen centre. The best games also check for top left and bottom right movement and adjust themselves accordingly. And you have go through the setting up every time you boot up a game!

PRINTING FROM WINDOWS

The same dealer who sold me the joystick rang up a couple of days later asking about DTP programss he could recommend to a customer who wanted to prepare newsletters on his laser printer. His customer started out with Windows *Write* but was disappointed that it wouldn't produce the size of fonts he wanted for headlines and the like. Both customer and dealer were to some extent fooled by the ease of producing large fonts on a dot-matrix printer.

On a laser, you can only access the internal fonts supplied with the printer. On a LaserJet, for instance, this amounts to Courier and Line Printer, which are both uninspiring and miniscule. Adding larger fonts is really down to spending money on something like Bitstream *Fontware* or *Typographica*.

Once you have one of these packages, you can generate the typefaces in any size you like, though you may be restricted by the printer itself. The original LaserJet, for instance, could only go up to 30 point, which is barely large enough for headlines.

Once you've got the font package and generated the fonts you need, the installation into Windows is simple enough. Although the program knows about the LaserJet font cartridges and the Adobe PostScript set, it doesn't know about Fred Blogg's fonts unless it's told specifically about them.

This procedure is carried out in the installation menu of the CONTROL.EXE utility (why isn't this built into Windows?). Chose Install Font and specify the drive and directory of the source font file. Once installed, the beauty of Windows is that the fonts are available immediately from any application.

PLUS ONE

It really is hard to keep up with developments these days. You may remember a brief piece I wrote last week on *PC Paintbrush IV*. This was an aside to a review I'm trying to put together, but with which I am having a considerable amount of difficulty.

I contacted the importer having seen an ad for the product in a trade mag – the first ad I'd seen for it. The company concerned said that the product hadn't yet been received from the States, but it was expected "real soon now".

I rang again this week, getting rather windy as the package still hadn't arrived. It turns out that the waiting is for the first delivery of *PC Paintbrush IV Plus*, an improved version with integral support for scanners and other wonderful goodies. I wonder if I'll receive the original version before its superceded?

MASSES FOR THE MASSES

Talking to a colleague the other day, I started to wonder how many word processors there actually are available for the PC. Starting in the bottom category, under £100, we counted over 20, with probably as many again in the range over £100.

There's nothing like choice to help you sleep nights, and knowing there are that many companies vying for my money just so I can write fast is a lot better than any number of sheep.

Simon Williams

MISCELLANEOUS BITS AND PCs

The unorthodoxly-attired persons (pictured right) are promoting the latest wheeze and breeze from Logitech.

It appears that a voucher system is now in operation which means that if you buy a copy of *PC Tools* or *Harvard Graphics* you can have a Logitech Professional mouse for £20 off the normal price. For more information about the scheme from Logi (UK) Ltd on 0925 41350.

Action Computer Supplies is selling three Key Tronic keyboards, which seem to offer somewhat more than the average PC keyboard.

Prices start at £89 and go up to £171 for top of the range. Give Action a call on 0800 333 333.

If you haven't got a letter-quality printer, you may be interested in Inspiration. This company is based in St Helens, Merseyside, and offers a range of print services including laser printing at 25p per page. Inspiration is on 0744 55543.

Cristie has been making PC tape streamers for many a year. The latest range has just been announced, offering compatibility with the IBM PS/2. Prices for the TS2000 range start at £999, with more info on 045 382 3611.

VGA graphics are extremely nice, but a colour monitor able to show the high-resolution images can cost more than a few pounds.

COMPUTER SHOPPER SHOW 89
LOGITECH
LOGITECH

• *Logitech: unorthodox dress, but good deals*

The answer could be mono VGA, which shows graphics in 64 shades of grey.

Taxan has just launched two new mono VGA monitors which cost £159 (12-inch model) and £179 (14-inch). Phone 0344 867646.

Mindscape (phone the good people on 044 486 545) has taken on the DS range of PC utility software, with prices starting at £29.99.

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IS YOUR STE A TURKEY?

Oh dear. It's usually nice to find Atari on the front of an issue of *New Computer Express*, but last week's edition was no fun at all. Someone somewhere has screwed up something wicked indeed.

Most readers of this column have STs, purchased in some cases several years ago. But a significant proportion are new to the 16-bit market, deciding to spend several hundred pounds on a brand new ST at Christmas, perhaps not realising that the machine has been the recent recipient of an upgrade.

The first calls I had in mid-December were from puzzled novices such as Joe Harrison (Birmingham), Dave Wilson (Huddersfield) and Mrs Pennington (Leicester) all of whom were wondering about the tiny 'e' after the letters ST.

Apparently Atari became desperate for supplies of the fast-selling ST and it shipped in STEs before it intended.

Then, after the Christmas break, I started hearing from mystified – and in some cases irate – callers (G. Swindlehurst, Don Walker and others) who'd bought ST games and found, to their astonishment, they wouldn't run!

For the background to and explanation of this extraordinary state of affairs, see page 3 of last week's *Express*. But I am still at a loss to understand how such a screw-up came about.

Frankly, Atari's tactic of blaming programmers who 'break the rules' would be laughable, if the results were not so grossly inconvenient to so many paying customers. Are we to believe that recent releases were not tested on the new machine, and that the whole thing came as a complete surprise to its developers?

Periodically commentators on the home computer industry speak confidently of its impending maturity, and what, with the arrival of the new decade, such observations are becoming something of a bore. But in the face of current evidence, such claims are now more than ever seeming premature.

NOW FOR THE GOOD NEWS

Despite the farcical elements of this sorry tale, it's not all doom and gloom. If you're a victim you should be able to get a refund or a replacement on any software that won't do the business, and STE-friendly versions of games are already appearing.

Meanwhile, for your money – exactly what the rest of us paid for the lower-spec ST – you get a machine capable of 256 colours on-screen rather than the ST's 16, and four-channel stereo sound.

One such customer was Glasgow's Andrew McEwan, who writes asking me to recommend some good software purchases. What I'd suggest to Andrew and to anyone else who finds him or herself in such a quandary, is to look at the centre section of *Express*, Shopping Express, which every week carries an invaluable buyers' guide (I keep copies handy myself).

There's also something published quarterly by Croftward called *The Directory* for the ST and another, less popular machine called the Amiga. Supplement that with a monthly dose of *ST Format* (£2.95, includes superb cover disk, available at all good newsagents) and you should soon build up an excellent software collection.

JUST YOUR TYPE

If you word process on your ST (and if you don't – why not?) you're probably one of the estimated 80 per cent who cannot touch type. Now's the time to learn, for HAT Software has just released a typing tutor. Cunningly entitled *Learning to Type*, it uses colour coding to guide fingers to the correct keys.

The program even includes a typing game that puts you under pressure to type in a correct code that disarms incoming missiles.

Costing £14.95, *Learning to Type* is claimed to be ideal for children, and it's certainly ideal for colour monitors, because that's the only kind it works on! Phone HAT Software for more details on 0743 231763.

SHOUTING FOR SOUNDS

"Can't I do anything about the ST's lousy sound?" asks Northampton reader Ian Miller. Well, yes you can Ian, if you're prepared to shell out for it. There's a device called the Tweety Board that does a lot to restore the ST's sound credibility and its unimpressive YM2149-F sound chip.

In fact, most software uses the chip's three sound channels, but since they're mixed back together before issuing from your speaker, there's not much by way of quality delivered ultimately. The Tweety Board simply keeps the signals separate.

That's the good news. There are, however, three bits of bad news. Firstly, you'll still need an amplifier and stereo speakers. Alternatively, use headphones, which give a better result that won't have the neighbours banging on the wall!

The second bit of bad news is that the Tweety Board requires you to open up your ST and apply the screwdriver, something I've never felt happy doing – and something which I don't advocate.

And finally there's the price, which leaves you little change from £50. Still, if you really want to know why *Xenon II*'s Bomb the Bass soundtrack won the industry's 1989 16-bit Game Soundtrack of the Year award, you either need Tweety Board – or an STE! (Wonder if *Xenon II* runs on the STE, though...?)

Contact the Bath Computer Shack on 0225 310300 for more details.

BUDGET BONANZA

If you're strapped for cash like I am at the moment, or indeed if you're not but know a bargain when you see one – you could do much worse than parting with a mere fiver for the budget re-releases of any of four Infogrames games now published by Interceptor.

Cream of the crop is undoubtedly *Captain Blood*, but there's also the highly-touted *Wanted*, now renamed *Outlaw*, *TNT* and *Warlock's Quest*. These titles should be available as you read this: contact Interceptor on 0734 817421 if you have any problems.

Steve Carey

GET A MONITOR: TELEVISION IS RUBBISH!

A newcomer to the ST is Stroud's David Robinson. "I have a CPC, and much as I love the old beast, 16-bit has to be where it's at," he writes in.

"But what about all those beautiful sharp colours everyone – yourself included – is always talking about?

"The CPC might not be so fast, but its graphics certainly look better than the ST's. I'm running my new 1040ST (not STE, note) on a colour telly – could this have anything to do with it?"

It certainly has got something to do with it. And there's really only one solution: get a real monitor. You say you have a CPC, and it is possible to borrow the monitor from that set-up. Ask a computer shop to knock together a lead for you, or contact Lightwave on 051-630 500 – it should cost about £15-£20.

But for the very finest results you'll need to buy a dedicated monitor. Best of all for anyone who ever plays ST games is the Atari SC1224, which unfortunately costs a wallet-straining £280 or upwards (consult *Express* ads for best deal).

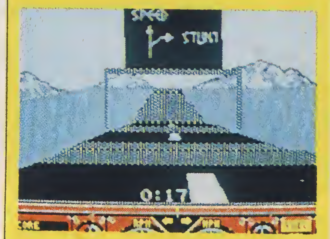
Alternatively, the Philips CM8832 (plus ST) cable is a popular and worthy choice, at £230 or less.

If you're a word processing/DTP only type-person, the Atari SM124 is about £150 and provides a startlingly good picture – arguably better even than the much-revered Macintosh monitor, which costs something in the region of half a million pounds (plus VAT).

• *SM124: arguably the best*

PLAYING TIP

HARD DRIVIN'



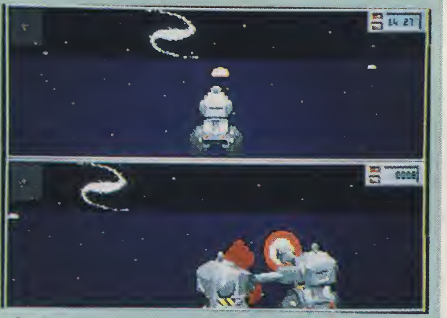
Want to get through *Hard Drivin'* in one piece? John Bevan from Essex has got the ultimate solution.

To use the cheat, put the car into top speed. Once you've hit full out, switch back into neutral. You are now invincible to all collisions, and you can travel constantly at top whack.

ST GAME of the WEEK

DARK CENTURY

TITUS • £24.95



• Dark Century: *ray-traced graphics, but little gameplay*

Programmers are constantly looking at games from new angles. While *Hard Drivin'* was a classic for its 3D routines, and *Space Ace* looks set to bring sophisticated animation onto the ST, now 3D ray-traced graphics are here, courtesy of Titus.

Ray-traced graphics add a reflective surface to an object. There have been numerous demos which exploit the effect, but *Dark Century* is the first game to incorporate it as a pivotal part of the game. The objective of *Dark Century* is to track down tanks in outer space and then to blast them to shreds.

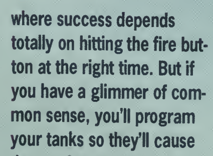
Since the other tanks come towards you and move off at such super-fast speeds, this isn't just a straight shoot-'em-up. Instead, the tanks rove on a 3D plane and to catch them you often need to program your own tanks to stay on their tail.

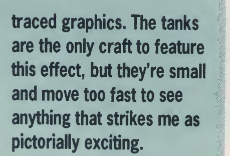
You can play manually where success depends totally on hitting the fire button at the right time. But if you have a glimmer of common sense, you'll program your tanks so they'll cause the maximum damage.

You can, if you are clever, direct the tanks via programming so they go off and find others in the vicinity, then self-destruct wiping the enemy away.

Taken as a whole, however, the game suffers from relying too much on the ray-traced graphics. The tanks are the only craft to feature this effect, but they're small and move too fast to see anything that strikes me as pictorially exciting.

Left solely with the gameplay then, you're unfortunately quickly disappointed. The tanks are too tricky to program and it's impossible to treat *Dark Century* as a playable shoot-'em-up. It simply does not stay challenging or addictive for long.





AMIGA

NEWTEK EYES EUROPE

Did you know that NewTek is the USA's largest maker of products solely for the Amiga? You didn't? If you didn't I'm not surprised.

Although most Amiga owners are familiar with NewTek's *DigiPaint* and *DigiView*, the workings of the company have remained largely shrouded in mystery. All that looks set to change with news that NewTek is to aim a marketing campaign at Europe, concentrating on the UK.

When I recently chatted to the folks at the Kansas-based company (my phone bill is not impressive), NewTek unveiled many of its plans for the coming year.

Although it will not open an office in this country (as it did in Germany last July), NewTek does plan to work more closely with its official UK distributors, HB Marketing. This new-found cooperation includes releasing PAL versions of products virtually at the same time as the NTSC versions.

Additionally, New Tek will be starting up a technical support line. The company has been running a similar system in the States for a while now and the response from users has been phenomenal. Plans are still sketchy, but NewTek hopes to make the UK line free of charge, like its American counterpart.

Although NewTek advertises within UK Amiga magazines, the ads to date have had a US market slant. Realising that a different approach is needed to tempt the European consumer, NewTek is soon to launch a major advertising campaign aimed at the UK and European Amiga owner – expect to see the NewTek logo bursting forth from just about every Amiga publication available!

While most of us Europeans have been eagerly awaiting the release of NewTek's Video Toaster system, latest news is that until very recently NewTek hadn't planned to produce a PAL version at all.

However, the good news is that after the amazing success of the recent Ami-Expo in Germany, NewTek has taken a u-turn and decided to produce a PAL version after all! According to NewTek, its stand was swamped with eager Germans trying desparately to get their hands on the infamous card. This was enough to start the ball rolling.

The Video Toaster isn't just an important product to NewTek, as Commodore US has expressed considerable interest. According to a spokesperson at NewTek, Commodore is contemplating a tie-in with NewTek to produce a series of ads to be run within the American press, that will help sell both the Video Toaster and the Amiga 2000.

Presumably Commodore's thinking behind the proposed campaign is that by selling the Video Toaster (which should, in theory, sell itself), the user will automatically buy the Amiga as well.

Not content with conquering the USA and Britain, NewTek intends to satisfy the wishes of international users with French and German versions of the hugely popular *DigiView* system. *DigiPaint*, too, will undergo an upgrade.

But hasn't *DigiPaint* just been upgraded to version 3 I hear you ask. Well, the guys at NewTek certainly can't be accused of resting on their laurels as Jamie Purdon, author of *DigiPaint*, has already starting beavering away on a radical upgrade to his HAM paint system that will make the last upgrade look like nothing more than a bug fix!

In fact, NewTek has no fewer than six new products in the pipeline. Among them are Alan Hasting' 3D rendering package that has already been in development for over two years. According to NewTek, when Alan's product hits the shelves 'it's going to blow every comparable product out of the water'.

Not wishing to fall into the Video Toaster trap, NewTek is rather unwilling to reveal any details about its other five products, but one thing's for sure – they aren't going to be run of the mill.

As I predicted in my recent preview of 1990, NewTek is undoubtedly going to be the company to watch during the coming year. To quote: "...we're the number one in the USA, and we intend to hold the same position in Europe...". Aggressive marketing it may be, but that's just what the Amiga market place has been crying out for – tougher competition means better quality products.

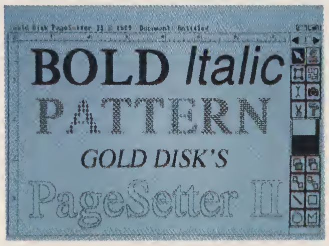
GOLD DISK SURPRISE

Anyone remember the *PageSetter* DTP system from Gold Disk that was released on the Amiga several years back?

Many would say that Gold Disk has moved onto greater things with the release of its professional DTP software, *ProPage* and *ProDraw*, but it seems the company hasn't forgotten its roots. In a surprise move, Gold Disk has released a major upgrade to *PageSetter*.

PageSetter 2 now includes many enhancements brought over from *Professional Page*, such as the inclusion of AGFA/Compugraphic font support (which allow the highest possibility printing resolution on a standard dot-matrix printer), compatibility with files from *Professional Draw* and several powerful structured drawing tools.

As the picture on this page illustrates, the new fonts included with the package are a tad better quality than the standard Workbench fonts that were present within the last release of *PageSetter*!



BOLD Italic
PATTERN
GOLD DISK'S
PageSetter II

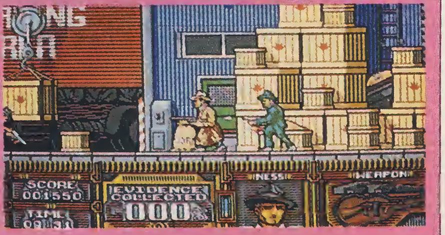
• *Bet you thought you'd never see this program again – yes folks, PageSetter is back with a vengence*

I had hoped to bring you an exclusive review of this package, but the Royal Mail has come up tops once again. Never mind, you can expect that one for next week's Amiga column. Can't wait? Contact HB Marketing on 0895 444433.

Jason Holborn

AMIGA GAME of the WEEK

THE UNTOUCHABLES



OCEAN • £24.99

Chicago was indeed a dangerous place during the 1920s. The infamous Al Capone and his gangland pals had the windy city gripped with terror.

Even the local police department was powerless to do anything. So the FBI formed the Untouchables – an elite band of government agents brought together to terminate Al Capone's reign as the mafioso kingpin.

You play Elliot Ness, leader of this band, and there are six stages to the game. The first sees you raiding Al Capone's warehouse in search of incriminating evidence (in the form of ledgers) that will put Capone behind bars.

Capone isn't going to take it lying down, however, as his hoods turn on you with shotguns and automatic weapons in a horizontally scrolling shoot-'em-up. Collect ten items of evidence and you earn the right to proceed to the next action-packed section.

The second level sees you trying to thwart a liquor run that is taking place over the American/Canadian border. You try to shoot up the bottles of liqour.

The game continues through to an alley way and then it's onto the train station. This section is played from a bird's eye view as Neff tries to guide a pram safely out of the danger before Capone's hoods can claim another victim.

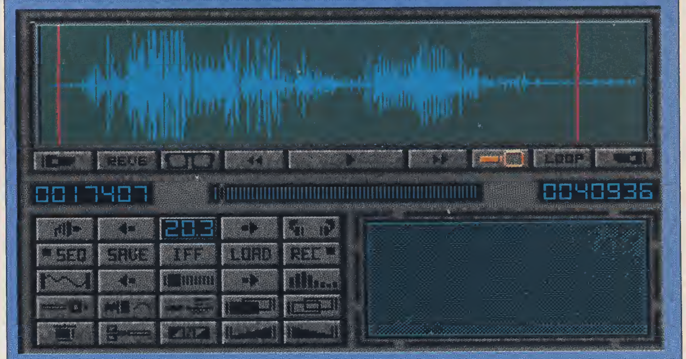
Then it's onto the screen where you're trying to save a poor innocent soul who has been taken hostage. Unless you wipe out the baddies quick, the hostage will get his brains blown out!

The final screen sees you chasing a hoodlum across the rooftops of the very court where Al Capone is facing justice. Kill him and Al Capone will be sent up the river for life.

Although the six levels lack variety, the overall game is well constructed. Thus the combination of nail biting gameplay, great graphics (using a full 32 colours!) and sound effects, make *The Untouchables* one to look out for.

Once again, Ocean proves that it is capable of translating a first class film in to a first class game. This is fun to play!

SOUND MASTER



• *The Master Sound sample editor in action*

The Amiga certainly isn't short of its fair share of sound samplers. Indeed it often seems that not a single week passes without a new unit being either released or announced. With such a large number available, chances are that there's a sound sampler to suit both your needs and budget.

However, for those of you looking for the ultimate in Amiga sound sampling, there is (and always has been) only one choice – *Future Sound*.

The original *Future Sound* that was released for the Amiga A1000 when the machine was first unveiled cost over £170, but with the (fairly) recent release of *Future Sound 500*, many more users could finally own the king of the sound samplers themsleves.

£75 still isn't cheap – so it's with great pleasure that I recently received a sound sampler that is not only budget-priced at £40, but even boasts better quality sound sampling than *Future Sound*.

Master Sound, from Microdeal, is the unit in question. People – myself among them – didn't raise particularly high hopes for the unit when it was first announced, but after extensive use (sampling my large collection of Depeche Mode CDs, mainly), I can only say I'm impressed. The sounds produced with *Master Sound* are some of the best I have ever heard from an Amiga sound sampler!

If this wasn't enough, Microdeal even includes a comprehensive sampler sequencer that allows you to create *Sound Tracker*-like tunes from sampled instruments. If you've ever contemplated buying a sound sampler, then now is the time to take the plunge and grab yourself a copy of *Master Sound*.

Microdeal can be contacted (but don't all phone at once!) on 0726 68020. This is a deal!

SPECTRUM

CRUISING CODEMASTERS

If the Vivaldi/Minogue/Jive Bunny CD you got for Christmas is starting to grate and people living with you keep saying things – 'there's a pair of headphones over there' – maybe it's time you gave your compact disc player the honour of being connected up to your Speccy and bought the CodeMasters CD games pack.

Now I was sceptical about this to begin with. CodeMasters is after all responsible for several thousand maddening budget games with simulator in the title and several thousand more featuring a walking egg called Dizzy, but the latest venture is truly innovative as well as great value for money. And just about everything else it says on the back of the box is true.

Inside said plush-looking box is the CD which contains a compilation of 30 previously released CodeMasters titles, the all-important lead which goes from the phones socket on any CD player to the joystick port of any Spectrum (48K with Kempston interface), an instruction booklet and a cassette containing the CD loader program.

To start the fun you load the program off tape, connect the CD player to your Speccy, set the volume using the first track on the CD and then load any of the 30 games.

It really is as simple as that and works, in my experience, very well indeed. But the biggest advantage over humble tape is the speed with which games load.

I don't know how CodeMasters has pulled it off, but everything on the disc manages to be up in at least 40 seconds or so and most load in 20.

There's also the added bonus that you can select any track easily – so the usual rewind/fast forward marathons needed with compilations on tape aren't required here.

The 30 games on offer are pretty good too, and they range from all-time best sellers like *Grand Prix* simulator to titles that have only just made it onto the shop shelves – *Treasure Island DIzzy* for example.

For £19.95 all included it's excellent value. You might just about be able to get two Cliff Richard audio CDs for that, and when you think how many more hours of entertainment 30 CodeMasters games are going to give you, it starts to look ridiculously cheap.

What's more, unlike most of Britain's aging pop stars, games on CD have got a potentially very healthy future. Not just this compilation, but the idea sparkles with generative health as well. Code Masters reckons it can fit about 3Mb of code on each disc, which means we could be seeing some huge games in the not-to-distant-future.

Even if the CD medium only gets used for big compilations like this one, the vast reduction in loading time, ability to pick any track and smaller chance of errors, means CodeMasters has come up with one of the most exciting Speccy developments for aeons.

Some of the games sound a damn sight better than Cliff as well. But, enough of my opinion – if you try this compilation, you won't be disappointed.

A BOOK IN A WORD

A few columns back I told you about *Adventures on the Spectrum* by Mike Gerrard, a new book that would surely win a Booker prize if Speccy adventure fans were left to decide. The trouble is the publication was made out to be more expensive that it really is by an incorrect postage price.

Rather than the 50p stated, the only sum you need add for the return of your copy in the UK is a miniscule 5p, thus bringing the total price up to a nice rotund £5.00. Unless you're an *Express* reader that is.

Mike Gerrard (PO Box 7, Ramsey, Huntingdon, Cambs PE17 2UZ), obviously still suffering from a nasty lingering case of Chrimbo spirit, has made an offer you can't refuse. If people order a copy and mention the secret initials 'NCE' they can lop a whole £1 off the price of his excellent tome and have it for £3.95 plus 5p toward postage.

DELECTABLE INFORMATION

R. Howe of Stoke-on-Trent is eager to find out from where he can get a manual for his Plus 2. The machine was unfortunately sans-manual when he got it, so any help in finding one would be joyfully received. If you either know a place that sells Plus 2 manuals or have got one to flog yourself, write to me at *Express*, and I'll pass the word on.

Despite being mentioned in this column the Plus 3 Users Group has been going from strength to strength without stopping and now numbers a healthy 300 members, and *Plus 3 Contact*, the group's monthly magazine is on its sixth issue and bulging nicely with 26 pages of member's articles on Plus 3 sound, Mallard BASIC, *Masterfile* and comms as well as a few listings, letters and game reviews. The PD library is also growing, and Plus 3 owners are advised to send an SAE, to Garner Designs, 57 Lovers Walk, Dunstable, Beds, LU5 4BG for membership details.

WRITE IN

Express has changed its address. The following are welcome: press releases, review software and hardware, pokes, hints and cheats, fanzines, info on user groups, comments, suggestions and criticisms. Send your materials in to: Robin Alway, *New Computer Express*, 30 Monmouth Street, Bath BA1 2AP.

Robin Alway

THE REST OF THE LISTING FROM LAST WEEK!

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290          DATA 229, 183, 237, 66, 225, 204, 219, 128, 213, 86
300          DATA 35, 94, 35, 34, 230, 128, 205, 27, 128, 209
310          DATA 24, 148, 42, 226, 128, 34, 232, 128, 201, 42
320          DATA 226, 128, 34, 230, 128, 201, 64, 156, 64, 158
330          DATA 32, 158, 30, 158, 0, 175, 50, 234, 128, 201
340          DATA 251, 201, 0, 0, 999
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PCW

GERMANE TO THE ISSUE

The sea of change 1989 in Eastern Europe is even making waves in the PCW world. Czechoslovakia is reckoned to be the next market for the PCW to take by storm, with East Germany being ripe for the machine as well. Something like one and a half million PCWs have been sold worldwide so far, and the Iron Curtain market is reckoned to have a potential 100-200,000 further sales.

This is the view of Thomas Wiedmann, who runs a computer firm in West Germany. There they're desperately trying to shift all their remaining PCWs as they are considered obsolete, and you can pick up a brand new 8512 for £250!

What's the catch? Well, being German configuration, the interface at the back is non-standard, meaning you can't use mice, memory expansions, RS232s and hence not modems, third party printers and so on. At least, not without finding a widget to convert your expansion slot, which may be difficult.

Anyway, if you are interested, you can reach him at Wiedmann Unternehmensberatung & Handel in Germany (his firm, not a trio of 18th century composers) on 0-89-96 50 29 or fax 0-89-96 50 01.

CAD, SIR

As everyone knows, you have to draw the line somewhere, though, as the graphics utilities in the PCW's BASIC, GSX, are as mystifying as trying to work out what the letters stand for – it's quite difficult to draw any sort of line anywhere at all on the PCW.

You need CAD, computer-aided design. Blueprints for an atomic reactor on a PCW would be out of the question, but a simple house plan would be quite within its reach.

The only PCW CAD program I know of, *Autodesk*, is no longer available, though you can make reasonable line drawings with one of the 'art' packages such as *Stop Press* or Electronic Studio's *Art*. These are not as accurate as a real CAD package but OK for simple diagrams.

However, the above-mentioned Thomas's company is considering the possibility of translating a new German CAD package into English. It would cost under £50 – a tremendous bargain.

Rob Ainsley

COSY FUN

Oddest PCW Christmas present must have been the one received by my predecessor on this column, Basil Pigg (whose work commitments have made him rather too busy to keep writing for *Express*).

Basil's mother gave him a woolly PCW cosy, lovingly knitted to the exact size and specifications of his PCW 8512 monitor.

MSX

A KONAMI WAVE

If you are lucky enough to own an MSX 2 computer, then two pieces of games software that I have recently been evaluating are a must for your collection. Firstly, although it is said that Konami has pulled out of MSX, this does not in fact seem to be the case, as I have two new Konami games in my possesion.

Contra has impressed me most. It is a multi-stage game in which the character you control has to fight his way past guards and installations in order to defeat an alien enemy that is hidden deep underground.

There are 19 levels to complete, and where *Contra* differs from other games of this ilk is that the perspective changes. Mostly you view the action as a sideways-scrolling scenario, but some stages give a 3D view of the action.

As each level is completed, the type of enemy troops you encounter changes, becoming increasingly difficult to defeat, until eventually you meet the strange alien creatures who must be destroyed.

In the end, *Contra* is an excellent game, with impressive graphics, and music and sound effects from the in-built Konami sound chip are first rate, a match even for the Amiga. The game is, of course, supplied on a mega ROM, and it scores 8 out of 10 in my book. If it were less expensive – less than the current tag of about £25.00 – the score would be even higher.

Testament (£14.95) is the second MSX 2 game that I have had the pleasure of reviewing. Produced by the Japanese software company Basho House, it comes on two double-sided 3.5-inch disks, and is supplied with English instructions (unlike some Japanese games).

The story-line of the game is this – you are a French explorer called Laille, and you have received a revelation from God that the continent called Diodolan, presumed to be merely a myth, really does exist. Your quest is to explore Diodolon and reach the exit of each stage.

There are numerous enemies to defeat, but to help you in your task there are extra weapons to collect, such as hand grenades, and food in the shape of hamburgers (or maybe beef?) to replenish your energy, which is soon depleted by enemy encounters.

Graphics just have to be seen to be believed, easily a match for the 16-bit computers. The introduction lasts easily five minutes, all the enemies being presented to you, then it's onto the action, with a 3D view of the scenario.

Gameplay, too, is to a very high standard, and when you hear the disk being accessed, you know a real nasty creature is about to attack you. And even though *Testament* utilises the three channel MSX sound chip, the music and effects are fantastic.

How did I rate this game? Well, if I tell you that *Testament* is now my favourite, then you can believe it is good – in fact it is brilliant.

Keith Neal

BBC

REASONED RESPONSES

My initial task (after tidying my desk, which is an absolutely appalling state) is to respond to a couple of queries from readers, one who has written in before, the other who has not.

From Mark Beevers, who thanks me for answering an earlier question, come a couple more posers.

Q."I am interested in the 80186 co-processor, claimed to run all PC-compatible software. If one is available, how much would it cost, and would I need a new disk drive?"

A.The 80186 co-processor was originally designed as a Master 128 plug-in board costing £399, but its price dipped considerably by the end – to £99. You really need a Master, or a fully-expanded BBC, plus adapter from Watford Electronics, to make the PC co-processor a viable enterprise.

You would, however, be able to pick a co-processor up secondhand – but, then, since you're upgrading – why not go all the way and upgrade to the superior Master at the same time for around £400-£450?

Further, for making the big leap up to using the co-processor, you will also need twin 80-track double-sided disk drives. But I'll leave software compatibility to another column as it's a very complex area, even if this does skirt the issue somewhat.

Q."I also read about a 68000 co-processor, which was demonstrated by running *Gauntlet* (ST version). Could this, by any stretch, be possible?"

A. No. You may in fact be slightly confused by the various software emulators on the market for the ST, Amiga and Mac machines.

NEXT!

My second reader query this week hearkens from an old column faithful, Mr Reginald Walker.

Q."Some of my programs only give a listing in *Wordwise*, instead of while they are running."

A. Mr Walker offers with his letter a listing of the ROMs in his machine, and the reason behind the malfunction is immediately apparent when looking at the ROM order. BASIC is in socket 08, and *Wordwise* is in 11.

In BBC terminology 15 is the highest priority socket. Thus, it is the one the machine looks to when starting its boot up routine.

Most sensibly-written programs do a *BASIC in the startup routine. However, if BASIC is no longer in socket 15, then other * commands, or routines passed to the OS may not find it, giving unpredictable results.

So, keep BASIC in socket 15 if you want to avoid problems!

PROMISES

I can see from these letters that there is still plenty you BBC owners want to know about your machine. So coming soon you'll find more about hardware, particularly unusual items.

And if you want or need a quick response to your question, write direct to me. Just telephone the good people at *Express* and they'll give you details about how to get in touch.

Andrew Brown

CPC

464 UPGRADES BANNED!

All those companies out there offering to upgrade your 464 have been doing it quite illegally – without knowing it, of course. And unless Amstrad and Locomotive can reach some kind of agreement, it looks as if those 6128 ROMs are going to become like gold dust.

Mind you, it's still possible to upgrade a 464 to near-6128 spec merely by the addition of an external disk drive and a 64K RAM pack. But the 6128 ROM offers, among other things, additional BASIC commands over the 464 version. Some commercial software won't run on a 464, even with extra memory, and many home-made routines written in 6128 BASIC won't work.

Users who bought a 464 intending to upgrade to full 6128 spec when they could afford it are going to be well peeved – and who can blame them? If anything, this latest controversy is going to widen the technology gap between the 464 and the 6128.

MORE HARD DRIVIN?

No, not another car racing sim, but – since we're on the sports theme – a golf sim from Accolade.

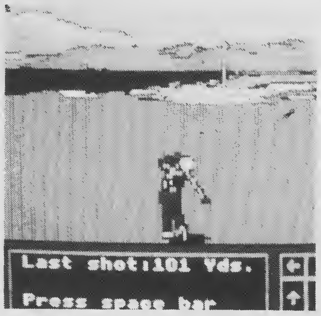
Jack Nicklaus Golf is a darned good game. Indeed, all the usual skill levels are catered for, so that at novice level (my favourite) even complete cretins can hope to sink the ball before the clubhouse shuts, while at pro level you'd need a degree in meteorology and sub-atomic physics to work out the trajectory of your drive.

But the most striking thing about *Jack Nicklaus Golf* is the quality of the graphics. It makes the original *Leaderboard* look very sick indeed.

Drawn with almost 16-bit quality, the scenes in *Jack Nicklaus Golf* take a while to come up on the screen (oddly, they're drawn from left to right), but once they're there you really get the feeling of 'being there'. Trees, bunkers and water hazards all look extremely solid, and even the undulations of the landscape are represented.

Once you've finished with the practice green and driving range, you're ready to tackle one of the game's three courses. Castle pines features a lot of trees to negotiate, while desert mountain promises the world's biggest bunkers. Perhaps best of all, though, is 'Jack's 18', the great man's own favourite holes from around the world. Try hard and you can actually recognise them.

Even if you find TV golf about as interesting as watching grass grow, *Jack Nicklaus* is still worth a tenner of anyone's money.



• Nicklaus's golf has 18 great holes

DON'T DO IT!

A Mr Rick Fickling of Bucknall has written in to warn all CPC-ers of the pitfalls of upgrading...

"In the summer of 1988 the ST seemed like the machine to have. I looked at the screenshots of ST games and decided that it was worth the money for the obviously superior graphics and speed; the extra memory would be nice for WP as well. So I bought one.

"But I suspect many people who do not own one of these computers are unaware of its deficiencies. True, the games are visually much nicer, but I've yet to play anything on my ST that can offer the same enjoyment I've had from playing *Rebelstar* and *Gryzor* on my humble 6128.

"The technology has moved on, but the gameplay hasn't. Anyone who believes they will get more fun out of ST games is going to be disappointed. And then, of course, there's the price to consider. I am not prepared to pay £25 for a game that I know will not have more lasting appeal than its equivalent on the CPC. So I buy the CPC version.

"Another problem is the lack of BASIC on ROM. On the surface, it seems a good idea to have a machine that can readily load in any kind of operating system or language that is available; in practice, it's a pain.

"I'm no great programmer, but I write little programs in BASIC now and again to help resolve some minor matter of interest. For example, I wrote one to convert millimetres into feet and inches when I was trying to decide whether an MFI bedroom suite would actually fit.

"So which machine do I reach for? The ST, which needs the BASIC language disk loaded before you can either enter, edit or run BASIC programs, or the CPC, which just needs switching on?

"It also annoys me that simple machine-code games occupy acres of memory on the ST. This is not really the machine's fault, because a great many so-called machine code programs on the ST are written in BASIC and then compiled as machine code. This is no bad thing, as it allows people who can only use BASIC, such as myself, to write quite decent games.

"The problem is that very few people bother to write machine code the hard way any more. They use a BASIC compiler, which provides most of the speed of true machine code, but in a grossly inflated program size. The result of all this is that the ST's advantage where disk capacity and memory are concerned is largely offset; a couple of trashy games can occupy the whole of a 720K disk.

"So, I would advise anyone thinking about upgrading to think again. The CPC has limitations, but it is probably the most hassle-free computer on the market; in other words, you can use it for all kinds of purposes without constantly consulting the user manual. And with the pathetic manual supplied with the ST, you won't get far."

There you have it, straight – as they say – from the horse's mouth! Certainly the ST is wonderful, but then it's a little grandiose doing the shopping in a Ferrari, isn't it?

Rod Lawton

YOUR FORMAT

PC 10
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Amiga 13
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QL

QJUMP FOR JOY

Very little information about the QDOS floppy disk format has been published. To fill this unseemly gap, I have lifted notes from a Qjump document dated November 1984.

The QDOS disk employs 512-byte sectors, and there are nine sectors per track, giving 360K bytes on the 40-track, double-sided disk.

Indeed, the format is quite similar to that used on the PC, and I've found that if I put a 360K QDOS disk in a PC and type DIR the directory will be listed.

The QDOS floppy disk driver software is also quite clever, in that it automatically optimises the stepping rate for each drive. This is the reason for the buzzing you get from the disk drive when the machine is booted.

As with Microdrive cartidges, a random number is recorded during the formatting operation. In conjunction with the disk name and an update count, this random figure is used by QDOS to detect if a disk has been changed.

CODEWORKS COMPATIBILITY

Speedscreen users who have encountered difficulties when utilizing it in conjunction with Qjump's QRAM will be interested in some information issued by Creative Codeworks.

From release 1.21 onwards, version 'P' of *Speedscreen* is totally compatible with current copies of QRAM. And free upgrades are available to users wth earlier QRAM versions.

A FEW POKES

`POKE_W 163976,255` **turns caps lock on, and** `POKE_W 163976, 0` **back off.**

To change the delay before a key repeats use `POKE_W 163980,n`. **The default value of n is 30.**

Use `POKE_W 163962,n` **to change the key repeat rate. The default value of n is 2.**

Additionally, a modified version of *Speedscreen* (1.29) is on offer for use with programs developed with Meta-Comco's C compiler, such as PDQL's *DiskOver*, *Multi-DiskOver*, and Digital Precision's *Xover*.

For this modification to the compiler library, registered users can return their master disk/cartridge with £6.50 to Creative Codeworks, PO Box 1095, Harborne, Birmingham B17 0EJ.

QL TECHNICAL REVIEW

Issue 2 of CGH Services' *QL Technical Review* is full of interesting material, such as a Mandelbrot set program and a review of *Text Tidy*. Cost is £5 for four issues from: CGH Services, Gwm Gwen Hall, Pencader, Dyfed SA39 9HA.

John Torofex

C64

DIZZY ON CD

If you happen to own a C64 and if you also own a compact disc player, then take the plunge for a 30 games package for £19.96, which is available from CodeMasters Software at Lower Farm House, Stoneythrope, Warwickshire, CV33 0DL.

Amongst others you will find on the CD the likes of *Dizzy*, *Redmax* and *Lazer Force* in addition to simulators such as *BMX* and *Snooker*. And a cable is supplied to attach your CD to your C64!

TAKE A HINT

I don't really have to say hi to Rick, Jamie and Chris from Stuart, do I?

On the business side of things, with the C64 in normal mode, if you want to have the screen flashing while you save or load a program, then try running this little listing:

```
10 READ A:IF A = -1 THEN POKE
   808,0: POKE 809,192:END
20 POKE 49152+N,A:N=N+1GOTO 10
30 DATA 28,32,208,238,24,212,
   76,237.246,-1
```

To get things back to normal, `POKE 808,237` **and** `POKE 809,246`.

G'DAY SPORT

No, not a plug for Kylie's or Jason's lastest single. Instead something serious is bubbling up from down under. A company calling itself Base 7 Software has on release an adventure game by the name of *Stowaway!*

The cost is the same on tape or disk for C64-ers, and if you don't mind waiting four to six weeks for overseas delivery, then the game that has been heavily featured in Australia's biggest Commodore magazine can be yours for a cheque made out to Base 7 Software for £5.50 (or A$13.00). Write to 39 License Road, Diggers Rest, Victoria 3427, Australia. Diggers Rest?

POKEING ALL OVER

Second time running for all those lucky-cartridge owners who are allowed to restart a game without needing a SYS location (don't worry – the rest of you will get the treatment next week).

In *Thunderblade*, `POKE 4159,255` for infinite lives, and for the same luxury in *R-Type* you'll need to `POKE 128865,173.` and `POKE 12957,173.`

Another two pokes are required for *Menace*, namely `8980,234` and `POKE 8981,234`. And finally, for those who remember *Pacmania*, `POKE 28520,165` will lend you the gift of infinite lives.

Pete Gerrard

XE

SPEED SCRIPT

What is probably the largest use for the personal computer? Can you guess? Word processing of course!

From the newest beginner to the most experienced hacker, everyone needs to type letters, betting slips, novels and so on, and personal computers are the most efficient tool for that writing. So which word processor should you buy when there are so many?

Well, one of the best word processors and certainly one of the cheapest is the somewhat-different-to-the-rest *Speed Script* from Compute! Publications.

Unlike many other packages, *Speed Script* comes in book form, containing the source code for the program and an infallible, easy-to-use loader for typing in the hex statements which make up the inner workings. There's also a full tutorial and explanantion of the program and word processing as a concept.

MIDNIGHT OIL

Don't be put off by having to type in the code. The *Speed Script* code-loader prompts you for each line, then uses checksums to calculate the value of the line. If it doesn't match the sum provided in the book, you know there was a mistake somewhere and you can go back and correct it quite easily.

Speed Script by Charles Brannon is published by Compute! Books Publications (ISBN 0-87455-003-3), costs around £10 and should be available from good book stores. Happy typing!

Edmund Blake

ARCHIMEDES

BACK TO THE FUTURE

In the last few weeks various rumours have been floating around concerning Acorn's intentions for 1990. These have come from a variety of sources, including the everlovin' Carrot.

It may be felt that the prognostications are, indeed, more wish-fulfilment than solid rumour, if solid rumour is a thing that exists in the real world. So what might Acorn really be thinking?

Historically, the company has had its financial fingers badly burned by the end of the micro boom, the plunge in retail sales being the main effect of this. The market has certainly been more volatile over the last few years than the specialist sectors like education and business.

The knock-on effect of winning the BBC Micro contract means that Acorn still has the lion's share of the education market, however.

The company can continue to capitalise on this, and while the Master series sells, there's little reason to kill it off. Amstrad must have the same view of its CPC, PCW and Sinclair lines.

But Acorn has made substantial R & D investment in the ARM chip and won't yet have recouped the cost of the ARM 3 development. It won't, therefore, be inclined to drop the price of the Arc.

Pressure from Olivetti may cause some re-think about the price of the entry level A3000 machine, however. Indeed, Olivetti might be tempted to request a reduction because its own Prodest PC has been less than successful, despite a reasonable spec.

Ultimately the parent company may decide that it wants to score with a PC, and that the best way to achieve a larger market share is with the A3000.

Further, if sales of the Master do dictate its demise this year, Acorn could probably afford to drop the price of the A3000, which is being kept high (artificially?) to maintain a price differential with the Master.

Never having known a company to drop prices unless it had to, though, any drop would probably also depend on current sales of the A3000 itself.

Acorn has already pointed out that it costs less 'in real terms', than the BBC Micro did at launch. It is also reasonable to assume that Acorn will continue to expand sales into DTP, into CAD and into the large market of higher education.

UPGRADE SAFE

Watford Electronics has taken the trouble to reply to the report, repeated in this column, that its 2Mb and 4Mb upgrades for the Arc could stress the power supply of A300 machines.

Watford's Shiraz assures me that both upgrades are based on low-power, high-speed RAM devices and actually reduce the power consumption of an A310 by at least 250mA.

This apparently incongruous state of affairs comes about because the Watford upgrade doesn't use the existing half or full megabyte of RAM on the mother board.

The 2Mb or 4Mb of CMOS memory fitted to the Watford boards takes considerably less power than the NMOS devices used by Acorn.

The Watford upgrade is user-installable and takes the form of a piggy-back board which plugs directly into the A300 series motherboard.

The MEMC and VIDC chips need to be removed from the motherboard and reinstalled on the upgrade board. Luckily the good people at Watford supply a custom-made tool to perform this extraction and re-placement.

VAT inclusive prices of the 300 series upgrade are £327.75 for 2Mb and £573.85 for 4Mb, both of which are considerably cheaper than products from CJE and Computerware.

The CJE product, though, does include collection, fitting and return of the machine. Less convenient than user installation, but perhaps safer for the less technically-minded.

Finally, the Watford A3000 series upgrades, which are rather easier to achieve, cost £148.35 for 2Mb and £401.35 for 4Mb.

DABBLING IN PASCAL

Is BASIC not fast enough for you? C a little too terse? ARM code simply too techie? Don't despiar, now there's a fourth option.

Cambridge Pascal is a full-featured Pascal compiler which is RISCOS compatible and written by Paul Fellows, ex-head of Acornsoft languages. Priced at £79.95 including VAT, it's available from DABS Press 061-766 8423.

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- KEEP THEM AMUSED Burger Blaster, Grime, Racer, Ninja, Caverns, Galaxy
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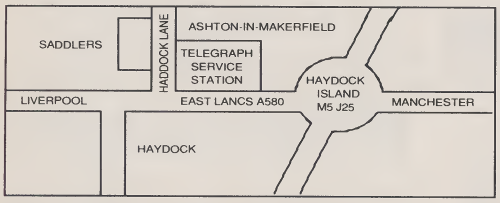

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The *weekly* computer market place for people *serious* about buying

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AMIGA ESSENTIALS

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3. To use a voucher, simply enclose it with your discounted payment when you order. You may use **only one** voucher in any one order.
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THE SHOPPING EXPRESS BUYERS' GUIDE TO AMIGA ESSENTIALS

Although the Amiga is often regarded as the best machine for games and graphics, it has a much wider range of capabilities. It can produce excellent sound and can handle everything from word processing and databases to desktop publishing and video titling.

The Express Guide to Amiga essentials will take you through the best buys for your Amiga and help you plough through the seemingly infinite range of useful utilities and breathtaking games, so that you can get the most out your all singing, all dancing computer.

WORD PROCESSORS

● PROTEXT

Arnor 0733 68909
£99.95

It's fast and easy to use – has a good spellchecker and even has a calculator built in for doing tedious sums. Text can be viewed in WYSIWYG mode too. Keyboard can be configured to execute a stream of commands at the press of a key.

▲ Word count, many block commands and calculator
▲ Powerful spellchecker
▲ Can work on two documents simultaneously

▼ Not beginner-friendly

● KIND WORDS

Amiga Centre Scotland 031-557 4242
£49.00

Produces the best printer output of any word processor on the Amiga thanks to special output modes which simulate near letter quality. Has lots of good printer drivers to exploit even the most simple of printers.

▲ Excellent printer output
▲ Graphics can be imported

▼ Lacks a word count unless you spell check

● SCRIBBLE

HB Marketing 0895 444433
£99.95

A simple to use word processor with spell checker and mail merger. Reformats text as you type. Although it lacks graphical functions, its simplicity makes it an excellent word processor.

▲ Simple to use
▲ Mail merge and spell checker

▼ Can't import graphics

● WORDPERFECT

Sentinel
£293.25

A hefty 500 page manual teaches you how to use *WordPerfect*. A huge spellchecker dictionary and a thesaurus add to the bundle. Can call up a command line interpreter from within the program.

▲ *WordPerfect* is used on many machines so it's useful if you're familiar with it

▼ Expensive otherwise and lacks graphical commands

SPREADSHEETS

● SUPERPLAN

Precision 01-330 7166
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Comes complete with a tutorial disk to help get you started – all the functions you're likely to need in a spreadsheet and also has excellent graphics display which makes data more digestible

▲ Macro language allows keyboard configuration
▲ Plenty of graphics functions
▲ Good find/replace database facilities

▼ Requires 1Mb of memory
▼ Awkward to use because of poor use of menus

DATABASES

● SUPERBASE 2

Precision 01-330 7166
£99.95

Simple to use, even for a beginner. Data can be imported from other files easily. Excellent data validation and useful help messages can be included. Mail merge facilities.

▲ Excellent tutorial files
▲ Graphics can be included and saved with the database

▼ Not cheap

● SUPERBASE PROFESSIONAL

Precision 01 330 7166
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The most powerful relational database available. Designed beautifully so that setting up a database is simplicity itself. Also incorporates a 200 command word programming language.

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▲ The Rolls Royce of databases

▼ Even less cheap

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Produces PostScript compatible files for use by laser printers and typesetting bureaux – can also produce colour separations. English, French and Spanish dictionaries in the spellchecker. Five magnifications including life size and 200 per cent. Probably the best and most sophisticated DTP package on the Amiga.

▲ PostScript compatible files
▲ Colour separations can be created
▲ Three dictionaries

▼ Requires 1Mb of RAM
▼ Two drives strongly recommended

● SHAKESPEARE

Cloudhall Ltd 0604 231 2111
£99

Clear and informative manual. Produces colour pages directly on colour printers. Has some problems with large documents so best used on single pages. Graphics can be imported and each retains it's palette. PostScript compatible.

▲ Ideal if you have a colour printer
▲ IFF file import

▼ No magnify function
▼ PostScript output is only in grey scale
▼ Graphics can't be edited on the page

● PUBLISHERS CHOICE

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A combination of three programs: *Pagesetter*, *Laserscript* and *Kindwords*. The latter is a word processor with both a spellchecker and thesaurus – just in case you get lost for words. *Laserscript* is a utility for converting *Pagesetter* files to PostScript format and printing them. *Pagesetter* includes a mini graphics package to help the page creation process. Excellent manual.

▲ Includes powerful word processor – *KindWords*
▲ PostScript compatible
▲ Graphics capabilities in Pagesetter
▼ Font and hyphenation information not imported with text

➤

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● CITY DESK

Precision 01-330 7166
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A very powerful DTP package, but suffers a little from unfriendliness. Style codes are imported when the text is. Includes a simple graphics editor which can be used to create or edit IFF files for use on the page.

▲ PostScript output is supported
▲ Text can be edited on the page

▼ Lacks a WIMP environment

● PAGESTREAM

Silica Systems 01-309 1111
£171.35

Text can be flowed around graphics in most DTPs, but *Pagestream* has the edge in that respect – text can be flowed in many ways. Magnification is not limited to five sizes – you can work at virtually any magnification.

▲ Flexible text flowing
▲ Large and easy to edit spell check dictionary

▼ Difficult to produce colour separations

GRAPHICS

● PHOTON PAINT 2

Microillusions 0703 703030
£89.95

Art package capable of producing HAM images. Comprehensive set of tools allowing re-scaling, flipping, rotation, bending stretching and much more.

▲ Wide range of tools for image manipulation

▼ But some are very slow to use

● DIGIPAINT 3

Newtek/Precision 01 330 7166
£69.95

HAM art package with facility to create images up to 1024 by 1024 pixels – the only limitation being memory. Good text entry system which uses a buffer. Text is manipulated before it's put on screen as a brush. Friendly interface between package and user

▲ Good text manipulation
▲ Huge images possible

▼ No fill or airbrush
▼ Awkward magnify mode

● DELUXE PAINT III

Electronic Arts 0753 49442
£79.95

Excellent art package that allows use of full overscan and extra halfbrite screens. Simple animations can be created too – very easy to do. Stencil mode stops you from accidentally airbrushing over the wrong part of the screen.

▲ Perspective fill
▲ Halfbrite Mode
▲ Full overscan screen

▼ 1 Mb required
▼ HAM not supported

● FANTAVISION

Domark 01 780 2222
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Uses polygons to create animated objects and relies on tweening to create the illusion of movement. Full colour IFF files can be imported to make up the background scenery.

▲ Fast animated sequences that don't eat up much memory
▲ One object can be easily transformed into another

▼ Objects are silhouettes

● MOVIE SETTER

HB Marketing 0895 444433
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Uses a series of sprites to create animations which are more cartoon like in nature than Fantavision. Sprites can be brushes created with most art packages – they're in IFF format. Storyboarding makes it easy to use and see what's going on. Animation can be played, rewound and stepped through frame by frame.

▲ Minor changes to productions can be viewed instantly
▲ Sound is easily integrated

▼ Works best with 1Mb
▼ Eats up memory if not careful

● PIXMATE IMAGE PROCESSOR

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▲ Converts images from one format to another
▲ Wide range of cleaning options

▼ But who the hell distributes it?

● X-CAD

Commodore 0628 770088
£199.95

Very fast re-drawing of images. Has great potential in the range and qualities of images that it can produce. Hardware requirements mean that you must be very serious about your CAD to justify buying it.

▲ Best CAD package available
▲ Fast
▲ Comprehensive

▼ Needs 2Mb
▼ Better with hard drive

● INTRO CAD

HB Marketing 0895 444433
£59.95

Extensive colouring routines enable realistic and detailed objects to be created. Easy to include text too. Ideal as an introduction to CAD

▲ Simple to use and much cheaper than X-CAD
▲ Excellent results can be obtained with a bit of skill

▼ Not as comprehensive as other packages

● SCULPT 4D

Amiga Centre Scotland 031 557 4242
£368

Creating 3D ray traced animations can be very satisfying, and Sculpt 4D is an excellent tool for doing just that. Adding text to the animations is ➤

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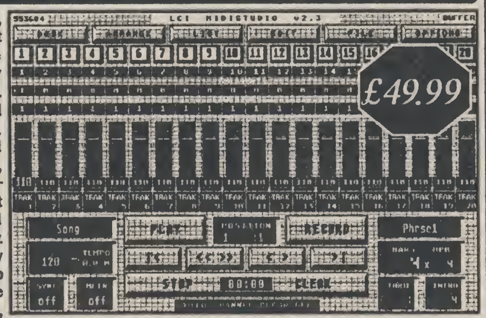

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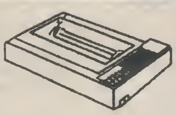

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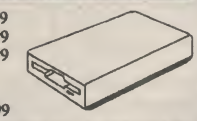

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AKHTER 286-3200	20MB	£1695
SCHNEIDER	PC7640	£1418
SAMSUNG S5200	32MB-AT	£1693
VICTOR V286P	30MB	£2499

AMSTRAD

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PCW8512	£395		
PCW9512	£424		
PC1512SD	£360	£437	
PC1512DD	£437	£513	
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PC1640DD	£512	£597	£682
PC1640HD	£682	£768	£853

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PC1386SD	£1180	£1265	£1351	£1436
PC2086SD +SOFT	£531	£617	£702	£787
PC2086DD + SOFT	£595	£680	£765	£851
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PC2386HD	£1702	£1787	£1872	£1957

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Monitors are separate.

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Super 16-TE D/D	£430	£430	£524	£580
Super 16-TE HD30	£561	£561	£655	£711
286C 8/10MHZ 512K RAM				
286 S/D	£749	£749	£749	£859
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386SX 8/16 Mhz 1MB RAM				
386 S/D	£959	£959	£959	£1069
386 HD30	£1159	£1159	£1159	£1269
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386C S/D	£1279	£1279	£1279	£1279
386C HD40	£1599	£1599	£1599	£1599

SAMSUNG

All the following Systems are without
Monitors. Please refer to monitor box.

Model	Mono	CGA	EGA
PC/XT			
SPC3000/1 S/D	£405	£405	
SPC3000/2 D/D	£473	£474	
SPC3000/3 HD20	£677	£677	
AT80286 10Mhz			
MFC6000/1 S/D	£812	£812	
MFC6000/2 S/D	£1015	£1015	
SPC6500/3 HD20	£1151	£1151	
AT80286 12Mhz 1MB VGA			
SPC6512/1 S/D	£1015	£1015	
SPC6512/3 HD20	£1219	£1219	
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AT80386 20Mhz 2MB EGA			
S800 D/D	£1693	£1693	£1693

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MITAC

Model	Mono	Col	EGA
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88 20MB,HD	£790		£1102
1000L PS/2	£730	£930	VGA'S
1000L PS/2	£963	£1163	VGA'S
286SL HD20	£1030	£1209	£1332
286SL HD42	£1163	£1342	£1465
286V HD42	£1463	£1663	VGA'S
286V HD102	£1930	£2130	VGA'S
286VE HD42	£1596	£1796	VGA'S
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386 HD42	£2330	£2568	VGA'S
386 HD102	£2796	£3130	VGA'S

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180E SER	175/30	£149
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MSP40	240/40	£199
MSP45	240/40	£239
MSP50	300/60	£285
MSP55	300/60	£399
24 PIN DOT MATRIX		
HQP 40	200/65	£259
SWIFT 24	160/60	£245
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OVERTURE 106	6PPM	£930
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LQ860	290/88	£499
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WANTED information manuals for CBM MPS 803 printer and CBM 1541 Drive any condition. Phone with price asking to Plymouth (0752) 786710 Evenings.

AMIGA amateur radio software wanted, send details etc. 100 per cent reply. Mark Cooper 33 Park View, Royston Barnsley South Yorks. S71 4AA.

MANUAL for Prism 2000 modem wanted urgently. Write to: Matthew De Monti 42 Kings Lane, Little Harrowden, Welling Borough Northants NN9 5BL.

ST Universe Two wanted with manaul 0209 711309.

WANTED to purchase or loan PFS First Choice Instruction manual Dave: Norwich 745512.

SWAP my original Power-Drift (Amiga) for your Super-Hang on (Amiga), phone Ian after 6.30pm at (01) 556 9147 London or sell for £12.

POCKET computer wanted! Must have Basic and minimum 2K RAM around £40 Telephone Bruce on Doncaster (0302) 855700 (any time weekends, after 4.30pm week days).

PHILIPS CM8833 for Amiga. Will pay up to £150 for 'as new' model. Willing to collect within 70 miles radius of Bradford tel: 0274 601095.

WANTED Devpac Amiga version 1 or 2. Must be with manual. Also demos to swap. Contact E. Mcloed, 5 Kinloch Place, Grangemouth, Stirlingshire, FK3 0EB.

EPYX Championship Wrestling Tape wanted for C-64 offers contact Alan Young, 276 Knightswood Rd, Glasgow G13 2ET. Any other good wrestling games? Hurry.

WANTED V12A Writer with spelling checker. (ROM cartridge preferred) For CBM 128 or 64/128. Ring (0534) 62062 Jersey quoting price, Thanks.

CHEETAH Spectrum wanted for 48k spectrum. Must have manual and software. Will pay £15. Calum Benson, 2 Daer Way, Oakmills, Hamilton, Lanarkshire ML3 9JT.

BUBBLE Bobble wanted for Amiga, can anyone help? Contact Jason, 24 Cranleith Hill Avenue, Edinburgh EH4 2JA.

SEGA megadrive games wanted. Will pay £15 per game depending on game. Write with offers to Jon, 3 Mosslingal, East Kilbridge G75 0HH. Please include your phone number.

IBM Adventurer seeks Jewels Of Darkness, Silicon Dreams and Zork Series will exchange/swap for other PC Adventures. Write 47 Longcroft Lane, Cheadle Hulme Cheshire.

HELP! Can anyone supply me with ST-Format Issue 1, for a good price (plus cover disk if possible). Phone 01-316 8669 and ask for Scott. (Daytime).

AMSTRAD PCW9512 with printer wanted. Can pay £200-£250. Please contact Will on 01-681 3633.

MSX: wanted, Kanomi, Nemesis. Two cartridge. Swap if appropriate 051 526 6362.

WANTED Hugo Cornwalls Hackers Handbook 2. Phone Thanet 850952 evenings please.

ATARI 520 STFM.5 meg internal drive, 1 meg external, 125 monitor s/ware including Fast GFA basics £350 or swap for PC setup Tel: 0968 76346 (Scotland).

PRINT Head for 1011 Printer also MDS 803 must be reasonable, disabled retiree Warrington 0925 821 857.

WANTED! Working s/hand Acoustic modems, also oldie computers and data comms s/ware for private collectors collection. S. Williams, 70 Edmunds Rd, Cranwell Village, Seaford, Lincolnshire NG34 8EP.

EPSON QX 16 without keyboard or VDU: or internal cards APX ICRT and APX IGGS: or name of capable repairer. J. Yarnell 4 Gillian Ave, ST Albans AL1 2QH.

DOES anybody have typed in programs for the Abacus Books range. It will save me hours of typing. Would be very grateful. Andy 44, Ballaquane Park, Peel, Isle of Man.

WANTED: Large CBM-64 disk collection, Ideally from ex-swapper. Demos, Trainers, Utilities, etc... old Classix and up to date Newies, Anything taken. Will pay B16 for Big collections. Paul: 0296 27305.

WANTED for STFM clock intern, extern, also Protext Prodata Dash keyword no copies please. Write to G. MacDonald. Hi to Baszoon and Jon Jon 34 ST Margarets Cres, Gravesend, Kent DA12 4EH.

BOOKS for Amiga, especially Amiga Tricks and Tips, wanted. Ring Geoff 0202 (Bournemouth) 485730 6pm plus and w/ends with what you have available.

WANTED 1901C monitor for C128 plus cable, will pay good price, include PET 2001 (old ROM) plus P.S.G. few games, may suit electronic hobbyist. Phone 0294 259400 evenings.

WANTED Atari ST(E) software originals, anything cheap and reasonably new please! Call Tony Strout on 0726 73333. 7.45am – 4.30pm Mon-Fri.

PRINTER with serial lead for unemployed Spectrum plus2 owner must be in good working order but cheap. Mr. P Morris, 6 Burnell Street, Birmingham, Chesterfield, S43 1HW. Tel: 0246 207765.

SEVERELY disabled young man wants Amiga magazines/software. Can only afford postage. Dave Winder, 27 Leith Towers, Grange Vale, Sutton, Surrey, SM2 5BY. Thank you.

SWAP Datachat Modem 1223 and Propak Telemap for good Desk Top Publishing package, all for Amstrad CPC6128. Tel: 0895 53011.

WANTED Amiga, will swap brilliant Nikon F401 autofocus SLR camera 35/70 zoom. Nikon SB22 flashgun. Decent carryall various soft focus etc. filters, any evening 0702 344208.

DRAGON 32 wanted. Can possibly collect in Nottingham area. Also wanted Amstrad PCW keyboard. Contact Duncan Brown on (0602) 653202.

WANTED Amstrad adventure games, will pay good price for your old second hand adventure games, (cassette) contact Richard, 5 Hogarth Walk, Lowestoft, Suffolk, or phone (0502) 518440.

BOOK wanted: Spectrum Machine Language for the Absolute Beginner by William Tang. Must be in good condition, your offers? Phone (0709) 365879.

BOOK wanted: The Hacker's Handbook – First Issue, published by Century. Your offers? Phone (0709) 365879.

WANTED desperately, Infocom's Hitch-Hiker's Guide to the Galaxy on Amiga. Genuine working copies only! Tel: (0892 83) 3515 after 5.30pm and ask for Paul. Please hurry! Will pay any reasonable cash sum.

WANTED: ST software to swap or buy, cheap if poss. Send lists to: 18a Wyeverne Road, Cathays, Cardiff CF2 4BH. Write to Mark, all replies answered.

MOUSE and cheese £18 o.n.o: Action Replay Mark Four and Five plus disks £30 o.n.o. Disk Software £5 each for CBM 64, ask for Jim 0782 518994.

WANTED printer with lead in good condition for Atari 520STFM. Devon area only, phone Dave, Crediton 4415 after 6pm.

BUBBLE Bobble for ST wanted urgently. Also Dungeon Master help needed. I've met Chaos, killed the Dragon, but where is Firestaff? Ring Paddi (0642) 787928.

WANTED: Boulderdash Construction Kit cassette for Atari 800XL. Both sides. Also Tasword Manual for C64. All replies acknowledged. Tel: George 0642 321060.

AMIGA penpals wanted. 100 per cent reply. If interested write to: Jeff at: 45 Westbury St, Bradford, BD4 8PB.

WANTED SX64 with or without software, will swap for C64 DDrive, monitor needed because of travel, must be in full working order. Phone (021) 326 6378 (Chris). Hi's to Nik, Daz, Ben, Fabioso, and you!

WANTED Koalapad. Will pay up to £20 and expert cartridge will pay up to £11. Both must be in good working order, also wanted Old Sid Chip Pay up to £2. Phone (021) 326 6378 (Chris) after 8pm.

WANTED cheap printer for my Spectrum plus2A EG – Alphacom 32, Seikosha GP50S. Contact Chris Toon, 82a Main Street, Kings Newton, Melbourne, Derby, DE7 1BX. Telephone 862500.

CODER (Amiga) wants really good Grafix and Muzak persons to form new group (name negotiable) Contact: Slaine, 22 Burton Close, Oadby Grange, Leicester. Tel: (0533) 719087.

WANTED urgently Pascal cartridge for Acorn Electron. Good price paid, write with details to: Mr. P Randal, 7 Mains Avenue, Helensburgh, Scotland, G84 8QW.

WANTED disk box for cased 3.5-inch disks. Capacity 30-50. Must be in good condition. Send price to: Paul, 39 Guilton Ash, Canterbury, Kent, CT3 2HL.

SWAP 1000 air miles for ST 1 meg external drive 3.5-inch or cash offer. Tel: Paul, Leeds (0532) 498985 eves please.

ATARI SM124 or SM125 monitor, must be reasonably priced. Phone (0563) 34383 (Kilmarnock).

AMSTRAD CPC colour monitor wanted for 6128. Contact Mr. Jivanjee after 7pm. 01-908 0909.

ATARI 1050 wanted, enhanced if possible but any considered, must be in v.g.c. will buy disk collection as well. Tel: Tony 0772 453972.

WANTED for Amiga. Audiomaster, Hisoft Basic and Amiga contacts.... Dorian Moore, 3a Union Road, Linlithgow, West Lothian, EH49 7DY. Hi to all!

OLIVETTI PC1 Circuit diagram or service manual wanted. Can pay! Anyone know of/or interested in starting PC1 user group? Contact Dave, Tyneside (091) 4544905 6pm plus.

COMMODORE Plus/4, new owner. Can anyone help with software, fanzines, anything. Thank you. Please contact: Tim Holyoake at: Tythe Farm Cottage, Peatling Magna, LE8 – 3UP.

WANTED QL disk interface, for student. Phone Carl: 0462 670177.

WANTED for PCW 8512: Lightning Basic, toolkit and other programs. Also interested in home-grown mallard basic routines. Tel: 061-798 7279 (evenings).

ADULT literacy and numeracy tutor wants suitable software for BBC B or Amstrad PCW 8512. Tel: 061-798 7279, after 5 pm.

TOSHIBA Zenith 286/386, hardware, software. Psion L264 software. Amstrad, Tandon considered. Realistic prices, colour monitor. Suit external drives possible. Tel: 08206 22481, evenings 9pm.

BARGAINS: Electron, joystick I/face, cassette and games. No PSU, £30. BBC disk drives, duel 200k and 400k, £40. Amiga contacts wanted. Tel: (0455) 616244, (Hinckley).

WANTED Amstrad PCW 8512 in Birmingham and surrounding area. Must be in good condition. Tel: 021-356 8582.

WANTED Atari 1050 disk drive for spares. Cash or swap software. Take system if cheap. Telephone or write to Dave: 8 Carfield, Skelmersdale, WN8 9DL. Tel: 0695 32818.

HELP WANTED

HOW do I get to the Desert Island on JetSet Willy II? I will pay you £1. Send to: R. Cross, 17 Tourney Road, Bearwood, Bournemouth, Dorset, BH11 9SX.

HELP wanted for Sharp MZ80B. Hints, tips and software required. Please phone 091 4607652 after 6pm.

HI, can anyone help me with Police Quest 2. Stamps refunded on request. P.J. Devlin, 18 Woodall Ramble, Booragoon, Perth, Western Australia, 6154. Please Help!

48K Spectrum owner needs help in finding any software/books about Cobol. Please help by writing to Gordon Watt, 36 Glenafeoch Road, Carluke, Lanarkshire, Scotland, ML8 4DR.

● ANNOUNCEMENTS

CALLING all Amiga people. We're here, the Amiga Skulls. Need help? Do your programs crash? You need Amiga Skulls. 1 Glebe Road, Edinburgh. Write now!

● PERSONAL

PENPALS wanted for 16-year-old male. Female preferred. Write to Paul at 39 Guilton, Ash, Canterbury, Kent, CT3 2HL.

WANTED CPC contacts to swap tips, hints etc. Help with Pascal also required. Write to Paul, 39 Guilton, Ash, Canterbury, Kent, CT3 3HL.

PC contacts wanted, 100 per cent reply. Write to B. Guy, 8 Berrylands, Orpington, Kent, BR6 9TF.

AMIGA contacts in Edinburgh wanted. Anyone welcome, don't delay, write today. Contact: Steve Allan, 30 Bughtlin Place, East Craigs, Edinburgh, EH12 8UY. C'mon get writing.

AMIGA Penpals wanted to exchange tips and ideas, also to swap unwanted games. Write to: David Lownds, 18 Gladstone Street, Leek, Staffs, ST13 5EP.

ST contacts wanted – M/code, games, utils, .5 meg or 1 meg drive. New owners too. Write to: Dave, 13b Brooklyn Street, Beverley Road, Hull, HU5 1NB.

AMIGA contacts wanted, fast, reliable, 100 per cent reply, all welcome. Disks get priority. Contact: Gary, 31 Foster Street, Brotton, Saltburn, Cleveland, TS12 2TR. Hi distributor Jenny Faggy.

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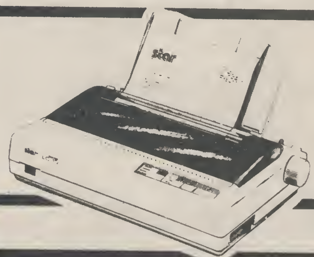

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6 Mealhouse Brow,
(Off Little Underbank),
Stockport. Manager: Ray
Tel: 061 480 2693
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HELP needed programming in C64 M/c any routines please! Also contacts wanted on tape or disk. I want mainly demos or UTs. S. Beachell, 64 Sharrow Street, Sheffield, S11 8BY.

ST contacts wanted, especially in Southend area, loads of games, 100 per cent fast reply, write now! John, 235 London Road, Westcliff on Sea, Essex, SS0 7BP.

AMIGA contacts wanted please no lamers, phone (0430) 861072 ask for Rick.

AMIGA contacts wanted to swap hints, tips etc. No lamers please. Come on female Amiga owners! Hi to all my contacts. Hi Steve. 23 Cherrymount, Clonmel, County Tipperary, Ireland.

AMIGA contacts wanted 100 per cent reply, send lists & disks to T.N.T. of Enigma, 33 Pomfrest Gardens, Stockwood, Bristol BS14 8XS. Tel: 0272 837471. .5Mb upgrade £65. Also wanted any music program.

FEMALE CPC owner wants Pen-Pals. Reply promised write fully to: Julie, 149 Malvern Crescent, Darlington, Co Durham DL3 9UN. Also wanting Elite original to buy (disk)?!

AMIGA contacts wanted must be fast. Send disks and lists to Perv, 4 Annan Court, Asply, Notts or tel. 0602 299435 beginners welcome.

AMIGA owner wishes to contact others in same area. Send disk's lists or just a hello to Steve, 12 Ashwell Road, Bury St Edmonds, Suffolk IP33 3LU.

ARCHIE user and 2nd year degree student and absolutely crazy on the Archie but heck!! What the hell need software, demo writers in C Basic. Ring 01- 737 3303.

DEMOS, games, utils, are there any serious programmers out there who wish to exchange and give software and ideas? Please call London 01-737 3303 7pm Ben.

AMIGA contacts wanted to swap latest stuff. Send list and disk 100 per cent reply write to Mike, 64 Townsend St, Cheltenham, Glos GL51 9 HB.

WANTED Amiga contacts. Are you fast, reliable, and incredible witty? Write (with disk) to Dave, hill View, Rush Hill, Farrington Gurney, Avon BS18 5TP. 100 per cent return.

DOES anyone know the whereabouts of Phil Goldie last known location Plumstead, London. Please contact Philip Beed, 83 Seymour Road, Lee on Solent, Hants PO13 9ER.

HI to Hal, Ozz and Was. Thanks for the call. stay lucky. Elric 0332 41630.

CAPITAL CITY writer seeks urgent help with hacking storyline. Absolute confidentiality guaranteed. Call Jon on 01-569 7214.

LONELY 386 owner seeks female pen-pal with or without PC with view to long and permanent friendship, and to swap hints, tips, software. Likes Graphics & DTP. Norman, 3 Weston Square, Albury, Nr Guilford, Surrey.

AMIGA + C64 contacts wanted to swap the latest stuff. Write to Andra + Me! 50 Avon Avenue, Carluke, Scotland ML8 5DD.

DUNGEON master, Bloodwych Fans, waiting for new levels. Enthusiasts contact me for exchange of hints and tips. Lets exchange info amongst ourselves on all software. 25 Sommerville Close, Faversham, Kent.

GFA Basic contact wanted for source code swap etc. Write to Lee, 49 Sherborne Road, Aspley Estate, Nottingham NG8 5PZ.

AMIGA contact wanted. Male or female. Write to: Willie, 23 Cherrymount, Clonmel, County Tipperary, Ireland. Hi Neutron UK and Powervision UK. Also Big Hi to D.D.C.!

AMIGA contacts wanted 100 per cent reply all welcome write to Sean, 31 Stansfield Road, Todmorden, Lanc's. Tel: 0706 816329. Hi to Yakuza, Paul

CPC and Pascal contacts wanted. Fellow sixth form students studying Pascal, please write, all welcome. Write to: Paul, 39 Guilton Ash, Canterbury, Kent, CT3 2HL.

LOST! Roger Wyboro Rivendel LDS has lost your address! Write to Scotland now to straighten out debts!

C64 contacts wanted send lists disks your latest stuff. 100 per cent return to: 10 Thomlinson Avenue, Carlisle, CA2 7LA.

DESPERATELY seeking female penpals for sixth form male student. Interests include computers, music etc. Please contact me: Paul, 39 Guilton Ash, Kent, CT3 2HL.

AMIGA contacts wanted to swap hints and tips and other stuff. Please send your list on paper or disk. 100 per cent reply. S. Hobbs, 40 Penrhos Crescent, Rumney, Cardiff, CF3 8PB.

JANET love you (grovel), any chance of a new 'puter. Love to Paul, Carl, David, Gemma. Hi to Jenny Ste and kids. Ian XXX.

ST contacts wanted to swap latest stuff, please send lists or disks, 100 per cent reply. Send them to Paul, 115 Spout House Lane, Great Barr, Birmingham, B43 5QB.

AMIGA user in North London wants contacts. Call 01-952 1491 anytime.

WOULD like to contact Atari XL/XE users. Both disk & tape based, write to: Steven Wilds, C/Payesas 30,07460 Pollensa, Mallorca, Spain.

FAST Amiga A500 contacts wanted. Phone 0272 836696, no beginners. Ask for Richard. Greets to: Quartex, Slipstream, Crysis, Oracle, Vision Factory Mercenary. Hello to Enigma UK.

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● MINI TIPS

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CBM 64, Brother printer, C2N cassette deck, 1571 disk drive, software, light pen, mouse, joystick, manuals, books, magazines, £360 o.n.o. Buyer collects. Tel: 0787 77842.

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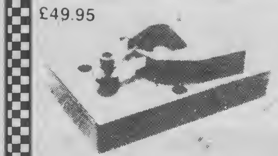

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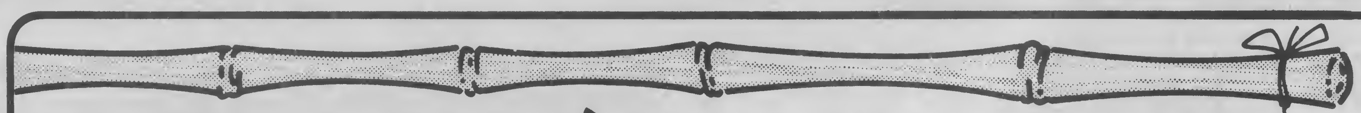

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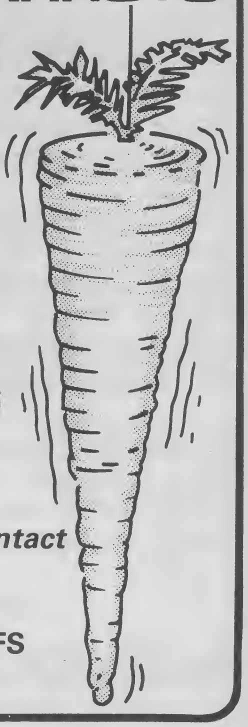

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WYSIWYG

✓ ***Calamus***: Many DTP programs claim that What You See Is What You Get – no DTP software would achieve many sales without this option. But few programs offer true WYSIWYG, the ability to display fonts at any resolution without creating jagged edges. Enlarge a standard bit-image graphic or character and you'll see a serrated edge resembling a steak knife. *Calamus* offers object-oriented graphics handling – enlarge a character and its edges remain smooth, facilitating delicate kerning (spacing between characters) and leading (spacing between lines) operations and ultra-accurate positioning of text.

✗ ***Fleet Street***: Bit-image graphics make up *Fleet Street*'s screen display, and so true WYSIWYG is not an option. However, Mirrorsoft is planning to add a bolt-on UltraScript PostScript emulator which will provide object-oriented fonts on-screen.

FONTS

✓ ***Calamus***: Several fonts are provided with the program and these are Times, Arc, Swiss (a Helvetica look-alike) and a teutonic script. All can be displayed in varying point sizes, outline, shadow and so on. When you've exhausted the possibilities of the supplied fonts, you can buy more from Signa, and there are many hundreds available.

✗ ***Fleet Street***: Mirrorsoft's program comes complete with 15 Lucida fonts including favourites such as Times and Helvetica and you can buy more from Mirrorsoft. The company supply genuine Linotype and ITC faces for a very reasonable £30 each. If you are using a PostScript printer then you will be able to make use of the high resolution of the fonts, although they will still be low resolution on screen.

IMPORTING TEXT & GRAPHICS

✓ ***Calamus***: Signa's software can handle graphics from a variety of sources including GEM metafiles as well as the more usual Degas and .IMG formats. *Calamus* has its own little pop-up word processor built in, but if you can't tear yourself away from *1st Word* or one of the other popular ST word processors then they are all catered for within the program. Select the source and *Calamus* will read the text.

✗ ***Fleet Street***: Criticised for the original package's inability to import GEM metafiles, Mirrorsoft has listened to its critics and provided the program with a large choice of sources for graphics and text importing. Degas, *Neochrome, Art Director* and Tiny formats are all supported.

Fleet Street will happily deal with the output from *1st Word Plus*, *WordPerfect* and the popular *Protext*, or you can use the program's limited in-built text facilities.

TEXT FLOW AROUND OBJECTS

✓ ***Fleet Street***: Text flow *par excellence*! Getting text to flow around regular, let alone irregular objects has long been a bug-bear other software houses have tried to avoid, pretending it doesn't exist and the punters won't notice. Not so with *Fleet Street*. Mirrorsoft has attacked the problem squarely and has come up with an elegant and neat solution. Merely marking points around a graphic using the mouse enables users to flow text around any object, whatever its shape. The process is fast and simple to use. Full marks to Mirrorsoft and *Fleet Street*.

✗ ***Calamus***: Unfortunately, *Calamus* provides text flow around regular objects only, and that process can be tricky. To perform the operation, users must mark up frames that they want text to flow around. These take the form of text frames with overlaid graphic frames. Clicking the relevant button sends text hurtling around the graphic frame – at least, that's the theory. In practice, there are sometimes large gaps, or the process refuses to work at all. At best it's slow and unlike any other part of *Calamus*, it feels clumsy.

SPEED

✓ ***Calamus***: Although *Calamus* manipulates object-oriented graphics, which places a heavy strain on processor and memory, the latest version of the program manages to deliver a turn of speed which must be seen to be believed. Even whole pages can be loaded or edited and redrawn within a perfectly acceptable time. There is none of the frustrated thumb twiddling associated with other supposedly professional DTP applications. Users can define their own keyboard shortcuts for the *Calamus* functions, enabling speedy access to all parts of the program.

✗ ***Fleet Street***: *Fleet Street*'s essentially simple approach to graphic display, and its marked lack of complexity on-screen, ensures a high rate of screen updating, and text and graphic importing. Perform some editing function and the screen is redrawn quickly and efficiently. Mirrorsoft plans to add the UltraScript PostScript emulator which will enable the program to display object-oriented fonts on screen, which may have an adverse effect on speed.

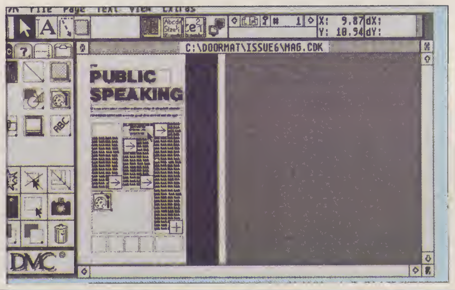
EASE OF USE

✓ ***Calamus***: Was it sale day at the icon store when *Calamus* was rolling off the electronic presses? The screen is awash with what is, at first sight, the most hideously complicated series of icons providing access to all of of the *Calamus* functions. Beginners to desktop publishing will find these icons extremely difficult to cope with. Surprisingly however, they are easily assimilated into your repertoire and quickly become familiar. And once you are happy with them, the icons and a mouse enable you to navigate swiftly and precisely through this monster of a DTP program.

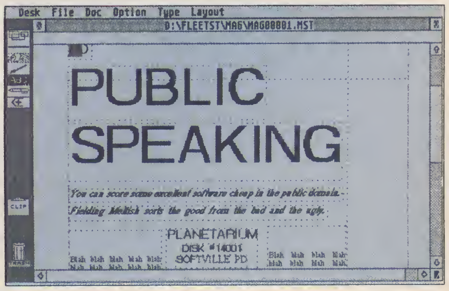
Calamus bypasses GEM's notoriously slow and inefficient file selection window and provides its own version which is a marked improvement. You can select drives and folder paths as well as files and the whole exercise is as simple as can be. With a little application to the manual, and a study of the icons and how they relate to one another, *Calamus* soon becomes easy to use.

✗ ***Fleet Street***: Mirrorsoft has chosen an entirely opposite path when planning the look and feel of the program. Just seven icons provide access to almost all of the program's editing, frame and drawing functions. A standard GEM menu bar delivers the rest of the commands – both the icons and the menu bar are quick and easy to learn. Within a couple of hours the complete novice can use the program confidently.

THE VERDICT: *Calamus* wins hands down on all counts except text flow around objects. However, it does cost £400, so base your choice on need rather than desire.■



• *An icon anyone?* **Calamus** *looks daunting.*



You can score some excellent software cheap in the public domain. Fielding Mellish sorts the good from the bad and the ugly.

• **Fleet Street Editor's** *tidy, uncluttered screen.*

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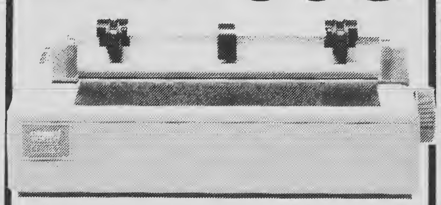

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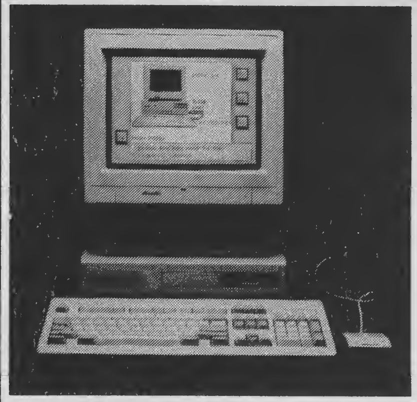

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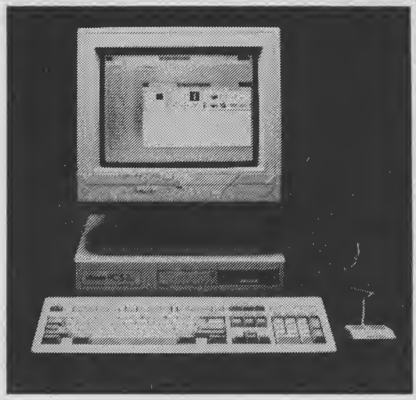
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitor supplied: 14" Colour or 14" Flat-screen Mono. (dot pitch 0.39mm)
- ◆ Optional 'Genius GM-U2' hi-res mouse available for only £49.95 inc.VAT
- ◆ Optional external 5.25" drive also available - phone to check availability.



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INSIDE THE PC COMPATIBLE

Buying a PC isn't easy. Prices range from £400 to over £10,000, so how do you decide on the right machine? In this new series, we look at the many elements that can make up the PC, so you will be able to make the right choice. Mike Hardaker explains.

The PC is the world's standard business microcomputer. Its huge success has lead to a greater range of applications software than any other computer has ever had. This, in turn, has lead to even greater success – because no matter what you want to do, the odds are that there's a PC application which can help you.

But just what exactly is a PC? In simple terms, it is any microcomputer which is compatible with the IBM Personal Computer. Unfortunately, very little in life is simple – and the PC is no exception.

Unlike most microcomputers – the Spectrum, say, or the Amstrad CPC – the PC has a highly modular design, so each part can be chosen to suit your needs. This is the root cause of its complexity, but also of its flexibility. It's the modular design which has led to the PC still being a viable, modern computer some nine years after its inception.

HISTORY LESSON

Back in 1981, Apple was making pots of money with the Apple II. Almost single-handedly, this had brought the microcomputer out of the hands of hobbyists and academics and into the business world – where the real money is. IBM, said to be the world's greatest marketing organisation, figured that if money was to be made out of a branch of computing, it ought to be in there – and microcomputing was no exception. The only problem was that IBM didn't have a suitable product at the time.

It built 'the' Personal Computer (modesty never being a dominant Big Blue trait, even in the naming of products) in a matter of months, mostly from components sourced outside IBM. The central processing unit (CPU) – the heart of any computer – came from Intel, other chips came from Texas Instruments, and an operating system (the software which provides an interface between the CPU and the outside world) was commissioned from a small Californian company called MicroSoft.

Apart from using many elements from other manufacturers, IBM positively encouraged third parties to design add-ons for the PC. The IBM PC had what is known as an 'open architecture', which means that the specifications of all the PC's interfaces were published and effectively in the public domain. The result of this was that extra pieces of hardware soon appeared allowing the PC to do much more than it was originally designed to do – and so making it more attractive.

The first major upgrade to come from IBM was in spring 1983. The IBM Personal Computer was joined by the IBM Personal Computer XT. This was similar to the first-born, but had somewhat redesigned internals and the option of a hard disk, allowing much greater storage capabilities than the floppy-disk-based PC. Copies of the IBM PC-XT are today's standard low-end PC compatibles.

• How it all started – an original IBM PC

ADVANCED TECHNOLOGY

August 1984 saw the launch of the IBM Personal Computer AT. The 'AT' stood for Advanced Technology, a reasonable description for the new machine. This used a far more advanced CPU than the PC and the PC-XT, together with an extension of the other elements of the PC's 'architecture'. The PC was 'upwardly compatible' with the PC-AT. This means that software and hardware designed for the original PC would work with the new AT. The reverse, however, was not necessarily true. Upward compatibility is a recurring theme with the PC family.

For three years, the IBM PCs remained much the same. Faster, bigger, more powerful versions appeared, but fundamentally only the two types of products were on the market: the PC-XT and PC-AT.

The next major revolution from IBM came in April 1987 with the launch of the Personal System/2 (PS/2). This retained software compatibility with the original PC, but introduced a new 'architecture'. In real terms, this meant that many of the PC's hardware add-ons did not plug into the PS/2. This breach with tradition was mitigated somewhat by the fact that IBM built many features into the PS/2 which had previously been optional extras. Nevertheless, the Personal System/2➤

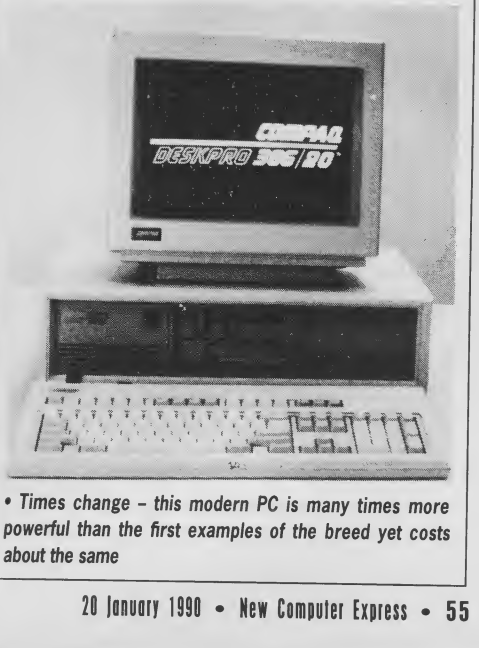
MS-DOS COMPATIBLE VS. PC COMPATIBLE

PCs are often described as 'MS-DOS compatible', so it's important to understand what this means. MS-DOS (short for 'MicroSoft Disk Operating System') is the PC's leading operating system. Commissioned from Microsoft by IBM, it was originally intended to be one of two operating systems for the PC (the other – CPM/86 – came out late and died a death).

Strictly speaking, you don't need an IBM-compatible PC to run MS-DOS. The operating system is written for the Intel CPU which IBM chose to use for the original PC, and can run on any computer which has this microprocessor or one of its derivatives. But beware! Although some PC software can run on any MS-DOS machine, most applications require some IBM-proprietary elements which are in the 'true' PC. In short, if it's IBM-compatible it will be MS-DOS compatible, but not all MS-DOS compatibles are IBM-compatible.

In the early Eighties, only IBM made IBM-compatible PCs, because of these proprietary elements. Therefore, many manufacturers made computers which were just MS-DOS compatible (the DEC Rainbow being an example). In due course, however, Compaq (followed by many others) worked out how to clone IBM's proprietary bits without breaching patent law and so produced its own PC, the Portable.

Nowadays, the relevant code to make reliable clones is available at a low price from a number of sources, so the non-IBM-compatible MS-DOS machines are no longer made. Therefore, you can be pretty certain that any new PC will run the software you want. Do be careful, however, if you are buying second-hand. An unusually cheap 'MS-DOS compatible' computer could turn out to be a waste of money.



• Times change – this modern PC is many times more powerful than the first examples of the breed yet costs about the same

is best seen as an attempt to create a new standard – perhaps a logical development of the PC standard but, nevertheless, something different.

OTHER VOICES

That is the IBM story – and already it is obvious that 'PC-compatibility' is no simple thing, with the original PC (and PC-XT), the PC-AT and the PS/2 all being different. However, Big Blue does not have everything its own way in the PC arena.

The first direct competitor it had in the PC world was Compaq. Compaq has always strived to fight IBM on its own ground, by offering more (or different) functions for the same price. Its first product was the Compaq Portable, launched in 1983. This provided users with all the elements of a PC in a single box about the size of a small suitcase. Suddenly, the PC was no longer desk-bound – and a new market was created. Compaq followed the success of its first machine with a range of desktop and portable computers that tended to offer a faster or lighter machine than IBM could, for much the same money. It is still in the same business.

The Compaq portable was certainly handy – it meant you could unplug you computer in the evening, carry it out of the office, toss it into the boot of your car and then open it up again when you got home. However, it still required the presence of a mains power socket. The next step was the laptop computer.

The laptop computer is typically the size of a slim attaché case. It runs off batteries and therefore allows the busy executive to work on an InterCity 125.

ENTER AMSTRAD

Despite the proliferation of IBM-compatible PC manufacturers, the PC was still an expensive tool until 1986. In the autumn of that year, British "pile 'em high and sell 'em cheap" specialist Alan Sugar launched the Amstrad PC1512. This machine was crude, plasticky and included some rather idiosyncratic design features – it was nevertheless the first attempt to give the PC to the mass market. The results were spectacular.

Amstrad's £399 PC opened up a vast new market, businesses and private individuals previously scared off by the PC's dauntingly high price. In seemingly no time, the Amstrad PC1512 (and its successor, the PC1640) had shipped more units than any other PC for sale in the UK. This vast sale caused programmers to write software which exploited the peculiar elements of the Amstrad machines – which lead to 'Amstrad compatibility' as well as IBM compatibility. Yet another layer of complexity had been added.

AND NOW...

Today, Amstrad is no longer the only bargain supplier of PCs – there are many hundreds. Indeed, IBM's entry-level systems are competitive on price with Amstrad's current PC2000 range – a situation which would have been unimaginable two years ago. The original 'big players' – IBM, Compaq, Epson, Toshiba, Zenith and Olivetti, for example – have been joined by a host of new names. In the UK market, companies such as Opus, Atari, Elonex, Compuadd, Watford Electronics, Comcen, NTS, Commodore and Viglen have built themselves reputations for providing value for money.

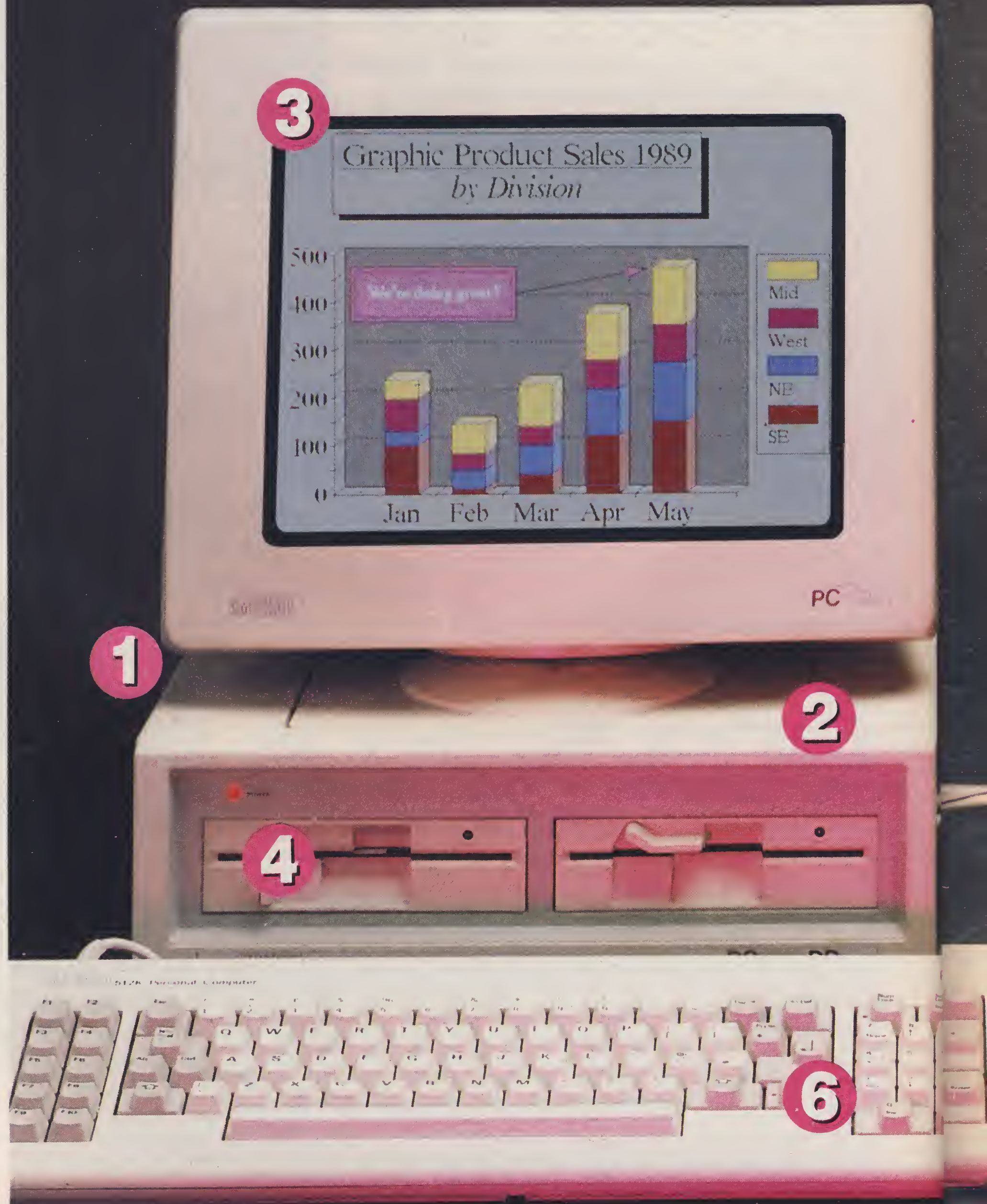
Each of these organisations – whether a mega-corporation based in California's Silicon Valley or a start-up company from the Welsh valleys – offers a huge range of different PCs. It can be difficult knowing which one to chose, but each PC system is essentially built up from a small number of items in a modular way.

This series will look at the various elements of a PC system, providing the information for you to choose the combination which suits your own requirements. ■

EXPANSION SLOTS

① These are the key to the PC's flexibility. Special cards can be fitted into the slots which either perform extra functions in themselves – such as supporting the networking of two or more PCs – or act as interfaces between the PC and peripherals (see far right).

Issue 67 will contain the essentials about expansion slots and Issue 68 looks at networking.



YOUR GUIDE TO

THE SYSTEM BOX

2

This is the main bit of a PC. It contains the microprocessor or CPU – the engine of a PC – together with the main memory (RAM) and the special chip which makes it IBM-compatible (the ROM BIOS – Read-Only Memory Basic Input-Output System). In here you will also find the power supply – an AC/DC transformer – together with the disk drives (see right). At the back you will usually find expansion slots (see left).

It can either be a desktop model (as illustrated) or a floor-standing tower, with cables attached to the other elements.

On laptop and portable computers the monitor (see below) and keyboard are usually built into this box.

Issues 64 and 65 of *Express* will tell you the key facts about the things which can go in the system box.

THE MONITOR

3

This is where you can see the information you have put into the PC, and the results of any processing you may have performed. It usually uses a cathode ray tube (like a television) although laptop machines tend to use liquid crystal displays (LCDs).

DISK DRIVES

4

These are what a PC uses to store your information and also the programs you will use to manipulate that information. The original IBM Personal Computer actually had a port where a cassette datacorder could be attached, but no one is believed to have used it!

Floppy disks for the PC come in five different flavours now, with three different physical sizes. These are used for transporting as well as storing data. There are also hard disks, which hold much more information than a floppy – the biggest are now over 2,000 times the size of the first PC disks.

New technology has seen the development of optical media, including versions of the Compact Disc adapted for PC use. Issue 65 of *Express* looks at the issues involved in buying disk drives and disks for a PC.

PERIPHERALS

5

These are the PC's contact with the outside world. Printers – in all their many varieties – can put your text and graphics on to paper. Plotters use pens to draw high-quality illustrations – invaluable for engineering design, for example. Modems give the PC the ability to send its data to other computers – anything from a small home micro to a huge mainframe. A mouse is a handy way of controlling a graphics program.

Most peripherals are attached to the PC via its expansion slots (see far left). Issue 67 will tell you all about peripherals.

THE KEYBOARD

6

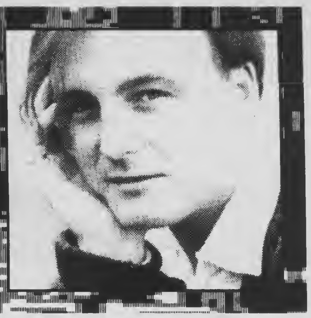
Essential for getting your information into the PC. There are three main types and any number of specialist keyboards which are designed help you get that data in as quickly an efficiently as possible.

Issue 66 will contain the information to help you decide which one is right for you.

5
AMSTRAD
Modem
2400
EPSON LQ 850

UNDERSTANDING THE SYSTEM

TECH TIPS



Does your PC keep packing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Uncle Tech Tip, he'll see you right. Send your sorry stories to Uncle TT, 30 Monmouth Street, Bath BA1 2AP. There's a prize for the most pitiful tale

■HELP! C64 questions

Me again! A couple of questions I forgot to ask in my last letter concerning Commodore 64Cs, 1541 disk drives and Citizen 120D printers.

1. What cartridge would you think best for back up purposes? There are many around and it is very confusing. Friends suggested Freeze Frame from Evesham Micros.

2. Datel used to sell disk notchers, and I need one! Do you know of anywhere I could get my mittens on one?

Bryan Stevenson, Chesterfield, Derbyshire.

1. Freeze Frame is probably the best back-up cartridge around at the moment for the Commodore 64 computer. The C64 – although a usable machine – has had its heyday and very few hardware manufacturers are bothering to support the computer, therefore there is a dearth of devices such as back-up cartridges.

2. I'm constantly asked this question. Unfortunately, the answer is always the same. Disk notchers did, briefly, enjoy a period of popularity – and notoriety – when the 5.25-inch disk drive first became affordable. In these days of plastic-encased 3-inch and 3.5-inch floppy disks, the disk notcher has become redundant.

You can of course still notch your disks easily using a sharp pair of scissors. Use one disk as a mask for another and make clean incisions with the scissors. Try not leave any rough or ragged edges as they may foul the drive mechanism. And remember, if you do notch disks designated as single sided, the integrity of stored information cannot be guaranteed.

■HELP! MS-Xtra

I own a Sanyo MSX computer and have a large range of software, but feel that with this machine I'm hitting a dead end. I've heard about MSX II and MSX II Plus computers with their extra memory and capabilities, and quite fancy one of those.

My dilemma is whether to keep with MSX (buy a larger memory MSX and keep my software) or start fresh with an Amiga or Atari ST. Please help.

Ian Steels, Westwood, Peterborough.

The problem of what to do with obsolete hardware is one which occurs all too frequently I'm afraid. It's a drag when you've invested a large amount of money and effort amassing software only to watch your chosen machine slide into the silicon graveyard. So I'm going to be blunt. Junk your MSX.

It may hurt, but you'll soon get over it and start life afresh with a new companion with which to burn the midnight oil. Put it into your toy box for the very last time and watch it gathering dust. In a few years time a nephew or niece requiring playthings will be heartily glad to discover Uncle's strange old computer. In 10 years' time representatives of the Science Museum will be beating a path to your door to buy the machine, so you're going to win whatever happens.

You're right to look at the Commodore Amiga and Atari ST as suitable alternatives. Both machines are equipped with RS232, Centronics and hard drive ports, joystick ports, fast Motorola 68000 central processors and more software than you can shake a stick at. And there's never been a better time to buy one of these machines with price wars ensuring that the punter is laughing all the the way to the tea caddy under the bed where they keep the loose cash.

Which of the two should you buy? Well, that's another story....

■HELP! Continental travels of a Commodore owner

I am going to Frankfurt for 12 weeks and I was thinking of taking my Commodore 64 and disk drive with me. Here are some questions that I would like you to answer in connection with my trip abroad.

1. Will I be able to plug my machine straight into the power supply or will I need an adapter of some kind?

2. Will any software I buy there be wholly compatible with my hardware?

3. Will any hardware I buy there be compatible with my C64, or if I found a suitably priced Amiga, would I be able to bring it back to the UK with no alterations necessary before plugging in?

Chris Winnera, Letchworth, Herts.

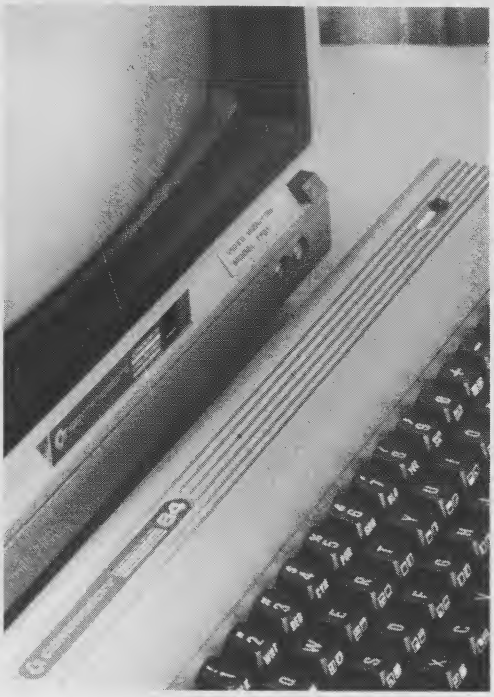
1. No. The UK is the only European country employing the 240-volt supply. Most of the others rely on smaller voltages such as 110 volts. If you want to use the machine in Germany then you'll need to purchase an adapter. These are available from branches of Currys, Laskys, Dixons and so on, and cost around a fiver.

2. Fortunately, Germany and the UK use almost the same television standards, so any software that you buy there should work perfectly well with your British machine.

3. It very much depends upon whether the peripheral device draws its power from the computer or an external supply. If the former holds true, then you can expect to be able to use those peripherals with your computer. If the latter, then I'm afraid the conversion of such devices is probably more trouble than it's worth.

As for buying an Amiga while you're out there, forget it! Quite apart from the hassles with power supplies and the like, what are you going to do when the machine is switched on and prompts you with German messages? As you didn't sign your name Hans, Rudolph or Sven, I must assume that you are British and advise against the action.

Do however, buy an adapter, take your machine to Germany and have fun with German software. Who knows, you may get lucky and forget to bring it back!



• Taking your Commodore 64 for a holiday? Read Uncle's advice

■HELP! Which micro?

You are probably getting tired of this question, but which computer would you recommend that I buy?

I have been thinking of buying a computer for some time now but cannot make up my mind. I need a machine for word processing, spreadsheeting etc, but one which would also be good for games. The Amiga, Atari STE or a cheap PC?

I am quite interested in the Commodore Amiga A500 because of the great graphics and sound features. However, it now seems easier to upgrade

the Atari 520STE's memory when required. Are hard disk drives as readily available for the Amiga as for the ST?

I would like to run MS-DOS programs, as I use a PS/2 at work, but I have only seen emulators for the ST. Are the hardware or software emulators available for the Amiga?

Finally, software. I do not want to spend too much on software, so I would like to use shareware or PD software if possible. As I am attempting to learn German and refresh my French, could you recommend a suitable word processing program, if possible with a spell checker and thesaurus that could cope with the accents etc, for the appropriate machine? I will probably use a Star LC10 printer.

John Carpenter, Workington, Cumbria.

What, Uncle Techtip become tired of helping his little Techtippers? All three computers have advantages and disadvantages. Good and bad points. On the one hand this, on the other perhaps, that. Of the three, and taking into account your reasons for owning a computer, I would recommend the Atari ST.

The latest version, the STE, comes with a blitter chip and custom sound hardware that will rival anything the Amiga can do. There's a positive plethora of hard drives and reasonably-priced memory upgrades and MS-DOS PC emulators, both hardware and software based, are readily available from several sources for a reasonable sum.

For a word processor which provides German and French punctuation marks try *1st Word Plus*. The program is an excellent GEM-based (i.e. with a windows, icons, menus and pointers interface) word processor, widely used and inexpensive (around £70). Both the Atari STE and *1st Word* will work happily with the Star LC10 printer. Perfect harmony.

■HELP! Going Loco

I own an Amstrad PCW9512, a family member owns a PCW8256. Both are boringly reliable using *LocoScript 2* – but we have two different versions, 2.11 and 2.16 respectively. Is it

a. legal

b. possible (using *8000COPY* in CP/M on the 9512)

c. advantageous

to copy `J216LOCO.EMS` from the smaller machine and substitute it for the existing `J211LOCO.EMS` on the 9512?

The later version occupies less disk space than the earlier one. Why is this?

D. E. M. Price, Redditch, Worcestershire.

a. No. b. Yes. c. Possibly.

If you buy a piece of software, open its packaging and use it, then you're bound by any copyright agreement that came with it.

This invariably means that only one person has the right to use that software. The same applies to the constituent parts of the program such as the .EMS file. Do not copy this file, you will be in breach of copyright.

As a registered owner of *LocoScript*, however, you may be able to upgrade the 2.11 version to the later one for a nominal fee. Contact Locomotive software on 0306 740606 to find out if you can do this.

The later version is smaller because the code has been optimised – made to be more efficient by fine-tuning it. Bulky routines can often be reduced in size by using a more elegant programming solution.

■TIP Plus 3 problems

You have recently published two letters from people having problems with using a Centronics printer with their Spectrum Plus 3.

The Spectrum issues a ground signal on pin 14 of the Centronics port, forcing the printer to perform a line feed too many. Therefore the solution is to open the printer's lead socket and disconnect the wire to pin 14.

If that doesn't solve the problem, alter the printer's dip switch governing line feeds as well.

Which is pin 14? A quick look on page 312 of the Spectrum Plus 3 manual will show you.

Gary Stimpson, Roade, Northants.

■HELP! Speccy requests

Could you answer these little problems for me?

1. Do you know of any other word processing packages for the humble Speccy besides Cardex's (PCGs)?

2. My friends and I are considering starting up our own fanzine. Are there any legal steps that we have to take?

3. Do you know where I can get my hands on a furry mouse cover?

4. I am also considering the possibility of buying a disk drive for use with my Plus 2. Which is better, a 3.5- or 5.25-inch drive? Can they hold the same amount of data (780K)?

5. Do you know if you can get a colour upgrade for an MT-81 printer? If so, how much does the upgrade cost and where can I get one from?

P. Cassidy, Greenock.

1. Several, the best of which is probably the *Tasword* from Tasman Software (0532 438301). Thousands of satisfied Spectrum owners simply can't be wrong. Invest your money in a copy and perhaps your next letter to me won't have every word Beginning With A Capital Letter!

2. None that I'm aware of, apart from the very obvious – do not break other people's copyright, ie do not 'lift' little snippets here and there from magazines and books, without first seeking permission. It's crazy, but there really are watchers out there scouring itty bitty little fanzines for breaches in copyright.

3. No (and if I did I wouldn't tell you, if only to save some vestige of your self esteem).

4. Buy a 3.5-inch drive. This format is fast becoming, indeed has become, the industry standard, replacing 5.25-inch disks (although there is still a huge number out there). The 3.5-inch floppy is robust and can store more data than its floppier counterpart. They're cheap and in plentiful supply.

5. I don't think there ever was a colour upgrade. Does any funky Techtipper know differently? Phone me and I'll pass on the good news and reward you with some computerish trinket (a handsome disk label perhaps, or an attractive and ornamental write-protect sticker for a 5.25-inch floppy).■

■HELP! Helping out with a CP/M bargain laptop

Here's a collection of problems which may stump even you. I recently obtained a non-working Bondwell Model 2 laptop computer and have restored it to fully functioning condition. My problem is what to do with it now it is fixed!

It has a Z80 processor, runs CP/M and uses 3.5-inch floppy disks (350K formatted, I think). Where can I get software for it? I already have *WordStar* and one or two other items, but no spell checker or toolkit programs for example. I cannot find a UK address for Bondwell (I believe they are American although the computer was bought in Singapore). Is there a UK agent? Can you give name the address of a Bondwell user group or failing that, of a CP/M user group who could perhaps help me? I have no manuals or information on the machine so can any of your readers help?

I intend the machine to be mainly used for word processing and report writing. Can you recommend a fairly cheap printer that will connect to it without too much hassle? There are RS232 and 'printer' sockets at the rear. What sort of external disk drive can I connect to the disk socket at the rear? Not much CP/M software seems to be available in the 3.5-inch format, so could I use a 5.25-inch one and if so, which?

Although the machine seems to be slower than the current PC-compatible laptops it seems to be a very neat package and far too good to throw away.

K. C. Jones, Greasby, Wirral.

Absolutely! If you, as I assume, didn't part with much cash for the machine then you have indeed equipped yourself with a very usable computer and one which has many years of service left to offer.

So let's get down to brass tacks. There probably isn't any machine-specific software available (programs written especially to take advantage of the Bondwell's little extras), but as the computer runs CP/M, your problems are over. CP/M was, nay is, an incredibly popular operating system with many thousands of users and consequently, the demand for CP/M-based software is still large. You should contact one of the CP/M user groups (address later) who maintain current lists of stockists of the kind of software you require. Programs are available covering every genre, from games to business, so worry not, there will be something out there whatever your need.

There isn't a UK distributor for Bondwell computer equipment, and as far as I'm aware, never has been, although there may have been a grey importer or two. If you are a grey importer reading this column, now is the time to come to arms and help one of your fellows in need. Any manuals will be gratefully passed on (and that includes you, Techtippers). There's no Bondwell user group in existence, but there are several CP/M user groups, the best of which is modestly named The CP/M User Group.

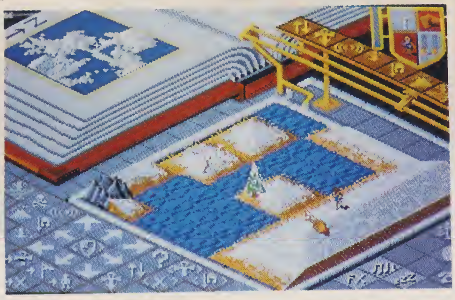
The group will be able to supply you with the addresses of software stockists, peripheral manufacturers and possibly even, the telephone numbers of other Bondwell owners (there's safety in numbers). Contact them at 72 Mill Lane, Hawley, Dartford DA2 7RZ.

Any of the popular small printers can be connected to the machine. The Star LC10 and the Panasonic KXP1081 are two of the best. Both can be had for well under £150 (under £120 if you shop around), and both offer fast, quality printing and good support from their respective manufacturers. Grub about in Shopping Express for a supplier or contact the manufacturers directly: Star is on 01-840 1800 and Panasonic on 0344 853915.

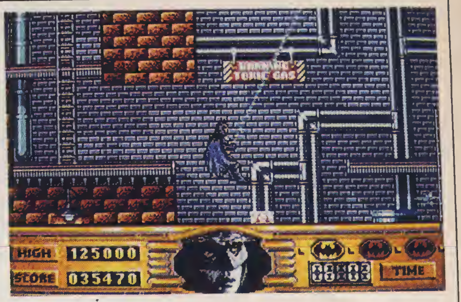
You can connect any standard IBM PC-compatible 5.25-inch disk drive to the Bondwell, with the exception of high-density devices. The ubiquitous 360K drive is cheap and in plentiful supply. Attaching one of these will enable you to achieve a greater level of compatibility with existing CP/M software. Second-hand examples are readily available and again, Shopping Express is the place to look. Expect to pay around £30 for a second-hand drive and about £60 for a brand new one.

One essential item considering your lack of manuals is a good CP/M text book. Probably the best of these is *Mastering CP/M* by Alan R Miller, published by Sybex (ISBN 0-89588-068-7), priced around £13.

• They managed to overlook Rik Dangerous, can you believe it? According to the big boys, these kind of cutesy arcade clones are on the way out.



• EA had the award for Populous in the bag for months, but what's next? The Bullfrog programming team are EA's strongest chance of a hit this year.



• Ocean, Batman's publisher, claims that movie licences are original games. If that's the case, we'll be seeing many more originals in 1990.

THE BEST OF 1990

December's InDin awards rewarded the best games of '89, so what have the winning companies got planned for this year? Mark Higham looks at what 1990's winners will feature.

The categories at last year's InDin awards were so exhaustive that if there was one thing you could bet on, it was that all the year's great games would receive a mention. Of course there were the inevitable grumbles that some of the chart-toppers didn't get awards, but even if your favourite shoot-'em-up wasn't on the list, you can take comfort that the great disasters never made it out of the starting gate. Who could forget the mediocre 16-bit *Robocop* and the unplayable *Dragon's Lair*?

ORIGINAL'S IN

Ever since the summer, the award for originality has been firmly in EA's hands. There can't be anything to touch *Populous* and, as testament to this, the Bullfrog programmers even scooped their own award for programming achievement. But how are they going to follow up to this masterpiece?

Populous was a hit largely because of its originality. So does Bullfrog plan more original games? Yes indeed. *Flood!* will be the first on the shelves in April. It's an arcade-style game, but it isn't the one which EA has its hopes (and money) pinned on. That honour goes to a Bullfrog original due in the summer. At present it has the working title of *Warmonger,* and EA is saying little more about it than that. However, Bullfrog has hinted that the game will have extensive multi-player facilities.

One of *Populous*' features was the ability to play across the telephone line, and *Warmonger* will also boast this option. As a result, you could play an opponent anywhere in the world. Bullfrog also has plans to include a network option, so several machines can be linked together and the game played by many people. Multi-player options in games are how Bullfrog sees the future developing.

"We saw an enormous potential in *Populous*", explained programmer Peter Molyneux. "There's nothing like playing another person because you really get the tension of a game. However well you might be able to make the machine become the second player, you can never beat playing a human opponent."

MIRROR, MIRROR

Mirrorsoft has done very well out of *Falcon,* which has won at the Indin for two consecutive years. When it was released it was the best serious flight simulator, and Mirrorsoft is attributing *Falcon*'s lasting success to the series of mission disks which have reserved it a place on the shelves.

Although no longer an original idea, Mirrorsoft won't be abandoning *Falcon.* In 1990 there will be at least one more set of mission disks, but the big contender for *Falcon*'s crown will come from *Flight of the Intruder.*

Set for a April or May release, *Intruder* will be a flight simulator featuring more interaction for solo players. During a mission you can go to the aid of other aircraft in distress, and sometimes they will come to your aid in an emergency.

In the originals department, Mirrorsoft is pinning its hopes on *Gravity.* It's an highly-detailed game based around the theories on space of Newton and Einstein, and it has been a year in development.

The Bitmap Brothers haven't been forgotten. Planned for July is *Cadaver* – an arcade adventure – which is their first step away from shoot-'em-ups. By August, they'll have another arcade game ready, and after the last, *Xenon II*, who knows what it might be. ➤

THE INDIN WINNERS

CATEGORY	WINNER	PUBLISHER
Budget 8-bit	*Postman Pat*	Alternative
Budget 16-bit	*Super Grid Runner*	Llamasoft
Adventure 8-bit	*Times of Lore*	Origin
Adventure 16-bit	*Indiana Jones III*	US Gold
Simulation 8-bit	*Stunt Car Racer*	MicroProse
Simulation 16-bit	*Falcon*	Mirrorsoft
Arcade licence translation 8-bit	*Chase HQ*	Ocean
Arcade licence translation 16-bit	*Operation Thunderbolt*	Ocean
Arcade game 8-bit	*Untouchables*	Ocean
Arcade game 16-bit	*Kick Off*	Anco
Overseas award	*Future Wars*	Delphine
Sound and music 8-bit	*Turbo Outrun*	US Gold
Sound and music 16-bit	*Xenon II*	Mirrorsoft
Graphics 8-bit	*Myth*	System 3
Graphics 16-bit	*Fiendish Freddie*	Mindscape
Translation of non-arcade licence 8-bit	*Batman*	Ocean
Translation of non-arcade licence 16-bit	*Batman*	Ocean
Programming award	Bullfrog for *Populous*	
Originality award 8-bit	*Myth*	System 3
Originality award 16-bit	*Populous*	EA
Best advertisement	*Fiendish Freddie*	Mindscape
Best software house	Ocean	

THE ALSO-RANS

Well those are the games that made it but which ones were overlooked? First we talked to the software houses and then we applied the thumbscrews. The result is this list of the games which they think should have received a medal.

1. *Rik Dangerous*, Firebird 2. *Strider*, US Gold 3. *Robocop* (8-bit), Ocean
4. *Sim City*, Infogrames 5. *Ghouls 'n' Ghosts*, US Gold

MIDWINTER
XII
RAINBIRD

MIDWINTER

The new ice age is upon you. Based on a newly colonised island, you struggle to keep warm and your food crops alive. Suddenly, you learn of a tyrannical dictator about to launch an attack upon your island.

As Commander of FVPF (Free Village Peace Force), you must initially warn other members of your force and, together, set about defending your territory along with your most valuable possessions, the heat mines.

Combining a truly stunning 3 dimensional landscape with plenty of action features, Midwinter, nevertheless, needs a great deal of strategy and guile in order for your forces of the FVPF to survive and defeat the invading forces.

Developed by Maelstrom, Midwinter, is set to be yet another classic from the Master of Strategy, Rainbird. Available for the Amiga, Atari ST and IBM PC and compatibles.

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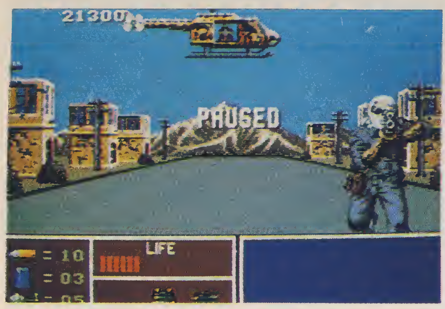


• *Ocean didn't score too highly with 16-bit owners until the end of the year, but Operation Thunderbolt looks like being just the first of many.*

ORIGINAL MOVIE LICENCES?

Ocean has also spotted enormous potential in the original games market, even though it was an award it never hoped to take home this year. Winning in five categories with four titles, the original interpretation of movie licences is one of Ocean's biggest strengths.

"*Batman* wasn't just a licence," insisted Gary Bracey of Ocean. "Companies have a tendency to release an 'OK' game and then depend on the strength of the licence. When we did *Batman* we wanted to enhance the licence."

Other movie licences are planned, including *Robocop II* and *Knight Breed*, a Clive Barker movie due out around Easter. Shortly afterwards will follow *Shadow Warrior* – one of only a handful of coin-op conversions in Ocean's schedule.

"This year we're covering all sorts of games, with seven or eight originals planned," said Bracey. Top of the original games menu is *Battle Command* – the follow up to *Carrier Command* – though it's hard to see how that could qualify as original.

WELL, THEN AGAIN...

Ocean's commitment to original games may sound hollow, but US Gold certainly spots potential there. "Coin-op conversions are on the way out. 16-bit machines will always be good for arcade conversions because of their graphics and sound, but it's original games which people want to see from us now. They're more in-depth and sophisticated," explained US Gold's Danielle Woodyatt.

Nevertheless, US Gold is keeping quiet about a whole batch of original games which have been in development for months. But it isn't so tight lipped about a batch of Lucasfilm games. Shortly to be released is *First over Germany* – the successor to *Battlehawks* – and this will be followed by *Loom*. *Loom* is a mammoth graphic adventure, and the PC version's visuals look incredible.

ARCADE ACTION

Although original games may be top of the agenda, no one is disputing that arcade games are still extremely popular. The InDin awards featured many arcade games and next year is unlikely to be any different. Still serving the same market is MicroProse which has been riding the simulation wave for years. *Stunt Car Racer* carried it to the top of the charts because it was one of the best racing simulators, and more are planned. An M1 tank simulator game is just over the horizon and another flying simulator will follow later.

Delphine also has no plans to change its strategy. *Future Wars* has been collecting accolades left, right and centre. After the success of *Future Wars*, it intends to release a new batch of adventures which use the same point-and-click system.

The only winner which looks unlikely to follow up its victory is Anco. *Kick Off* came out of nowhere to be acclaimed as the best football simulation ever, but could Anco ever follow it? It's going to try. It has already released an *Extra Time* disk and a player/manager game combining elements of *Kick Off* with management strategy is planned for the summer.

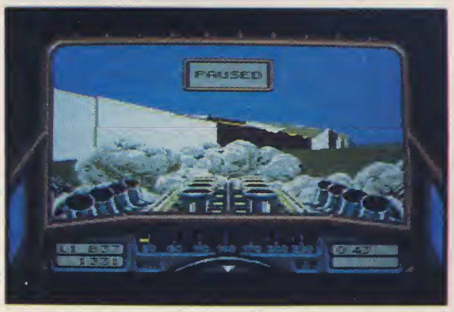
OLD-FASHIONED VALUES

Anco rightly attributes its success to concentration on playability. It should be the principle for all games, but programmers forgot it somewhere in the jungle of pretty graphics and sound. Now playability looks like coming back in fashion.

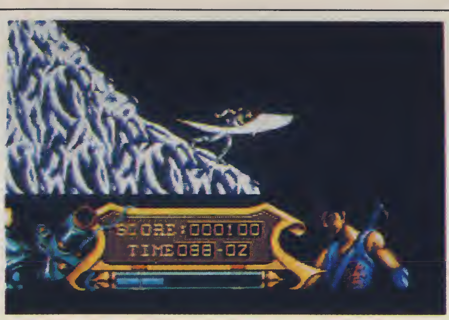
The buzzword for the Nineties seems set to be 'original'. Electronic Arts and Mirrorsoft have been releasing original games for years, but now the likes of Ocean and US Gold are hopping onto the bandwagon. That can only bode well for the playability of tomorrow's games.

Arcade conversions have given the home micro a lot of excellent games and, particularly on the 16-bit side, new heights have been reached. Who could forget *Strider*, surely one of the best arcade conversions of the year, or *Operation Thunderbolt*, winner of that award? But now it's time for home micro games to find their own, new, territory. That doesn't mean the end of arcade conversions and movie licences.

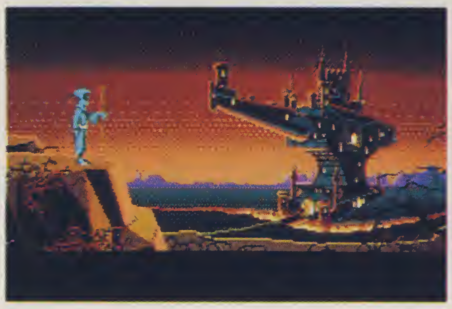
There will always be big money in movie licence deals, but hopefully unusual and original games which take better advantage of the machine will top the charts in 1990. ■



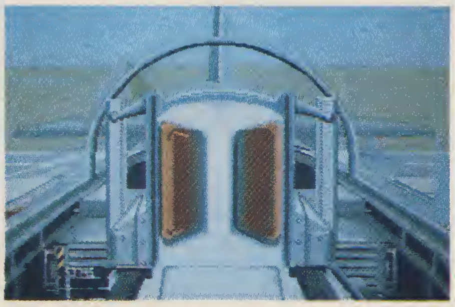
• *After Stunt Car Racer topped the charts at the end of last year, MicroProse is certain that simulations are still going strong.*



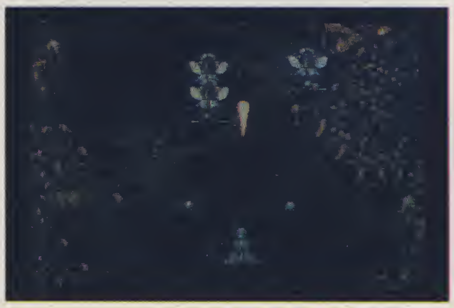
• *Strider was one of the best arcade conversions of '89, so where was its medal? US Gold may not have scored with this one, but it's going for the originality award next time.*



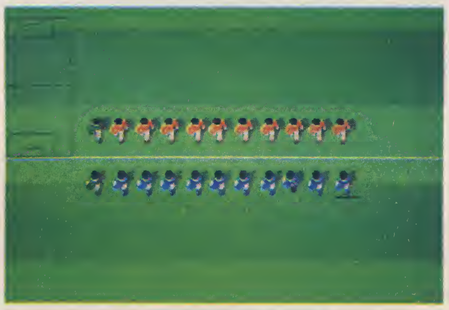
• *Loom is being tipped for great things, at least as far as visuals go. Lucasfilm has a reputation for good games and its next is a graphic adventure.*



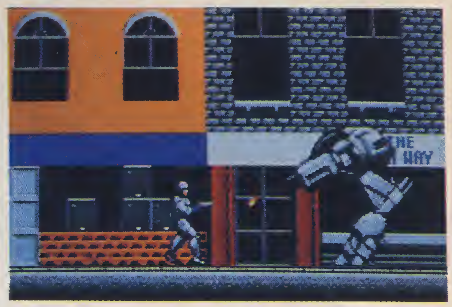
• *Mirrorsoft is crowing that Falcon is the only game ever to have won twice at the InDin awards. Its success is attributed to the mission disks*



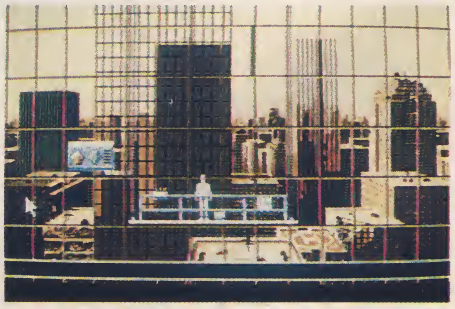
• *The Bitmaps only picked up best sound for Xenon II but they've not dropped out of arcade games yet.*



• *Kick Off came like a bolt out of nowhere and won praise from everyone. It was the definitive football game but can Anco ever hope to repeat its success?*



• *Robocop was noticeable by its absence in the awards. Staying high in the charts for months, it deserved something – a longevity award?*



• *Future Wars is the first of many similar games due from Delphine. It's been stealing awards all over the place and picked up the overseas medal at the InDin.*

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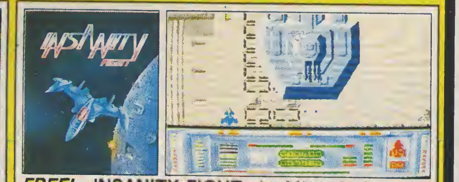
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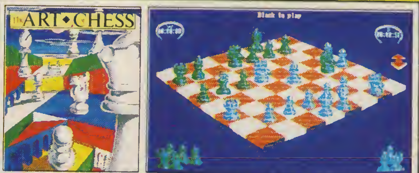
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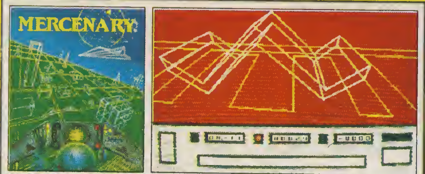
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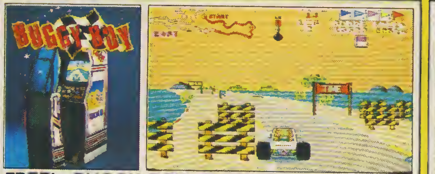
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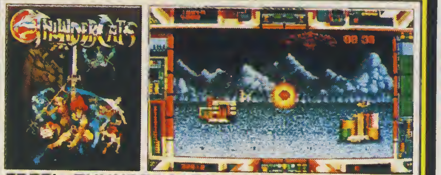
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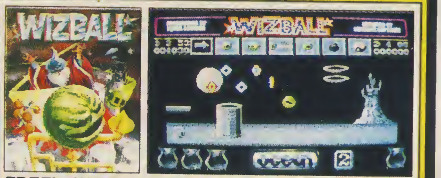
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This week your host is Martyn Lester

■STE problems

I've experienced some problems with the Atari STE, after upgrading from an STFM, which may be of interest to other readers.

You cannot boot-up in medium resolution, even after saving the Desktop in medium res – the computer simply boots in low res. This causes other problems such as being unable to auto-boot such programs as *Neodesk*.

Silica Shop said that this was a bug in TOS 1.6 which would be overcome by running a program (available in February) from the AUTO folder.

Some models of external 3.5-inch drive are incompatible, for example the older Cumana and Triangle drives. No joy on this one, I'm afraid. Cumana said they were 'not allowed' to discuss why their drive didn't work with the STE. Another bug it seems.

The addendum to the user manual supplied with the STE mentions an updated control panel accessory with 16 settings for colour adjustment as opposed to the current eight.

The machine is in fact currently supplied with the old version which doesn't work correctly. Silica Shop informed me that the new version would be available 'some time in February, after the official launch of the machine'. Hmmm...

Here's a list of programs I've found (so far) that either don't load at all or crash after loading: *Arctic Fox, Barbarian* (Palace), *Barbarian 2* (Palace), STOS, *Captain Blood, Colossus Chess X, Defender of the Crown, F16 Combat Pilot, License to Kill, Netherworld, Operation Wolf, Overlander, Populous, Raffles, Road Runner, Seconds Out, Speedball, Starglider 1, Star Wars, Times of Lore, Winter Games, Nebulous, Weird Dreams, Rick Dangerous, Waterloo, Stunt Car Racer, Eagles Nest, Supersprint*.

Andy Richardson, Etchingham, East Sussex.

...and again...

With reference to your article in *Express* 61 about software incompatibility with the 520 STE, I would like to add a couple more games to your list – these include *Paperboy, F-16 Combat Pilot* and *Overlander*. As I also own both STOS and *New Zealand Story*, that brings the value of the games that are now useless to more than £80.

Atari themselves seem totally ignorant to this problem, as the free game *Ranarama*, which is included in the Explorer Pack, will also not load!

Another 'bug', unless my Atari is faulty, is that you cannot save Desktop info in medium resolution, so every time I boot up a program which will not run in low res, I have to reset resolution. I would be interested to hear if anyone else has come across this problem.

May I just add that I am not new to the ST, in fact I owned an STFM for 18 months before upgrading.

Dave Dean, Cannock, West Midlands.

...further still...

I have just purchased an Atari 520STE from Evesham Micros I was very pleased when it came until I tried to use *1st Word* (which came with it). When you type, the letters you press don't come up – for example, when I pressed the 'F' an E and a T came up instead.

This also happens when I type up my name for the highest score on the games from the Super Pack.

I read your article in *Express* 61 and I wondered if there is any solution to the problem.

Mrs J Tompson, Bath, Avon.

...yet more...

With reference to your article asking for any problems with the STE, I purchased a new 1040STE just prior to Christmas and the following faults/problems have occurred:

1. There was no Language disk in the package. I went to Evesham Micros, Stirchley, Birmingham, where I purchased the machine, and the man checked another box and found that it also lacked a Language disk. He then copied an old disk from an STFM for me.

2. Setting Desktop preferences and saving does not in fact save. On rebooting, all the preferences are lost.

3. Add the following to games/programs that will not run on the STE: *3-D Pool, Ghouls 'n' Ghosts* and STOS.

4. The manual is for the STFM. Although there is a four-page addendum sheet, it smacks a little of a rushed job!

Other than that I have been pleased with the machine. I am a previous IBM user (and still am) but I was impressed by what the ST could do (particularly with regard to DTP) and will soon be adding a hard drive.

Ask Atari why their hard disks are so expensive. After all, the casing etc is hardly compatible with the cost of the Megafile 30/60, and it would increase the credibility of the product (certainly in the eyes of the IBM user) if it had a sturdier construction and also gave more apparent value for money.

Robert I Bird, Leamington Spa, Warwicks.

...plus these...

Having purchased the STE Explorer Pack with three software games (*Paperboy, Motorbike Madness* and *Beyond the Ice Palace*) and an educational package (*Fun School 2*) we proceeded to set up the machine on Christmas Day.

Paperboy refused to come to life, so we tried *Motorbike Madness* – great, it loaded OK. The screen game started then crashed after 15 seconds, and still does so after many attempts.

Fun School 2 also refused to start.

I spent the next hour and a half reading through the manual for user error. We then started to use the STE Explorer Disk, so at least we could play *Ranarama*. After loading a screen display, even this crashes. Yes a game actually supplied by Atari itself for use in its new computer doesn't work!

Next day we tried beyond the *Ice Palace*, and yes it worked. At last, a game to play!

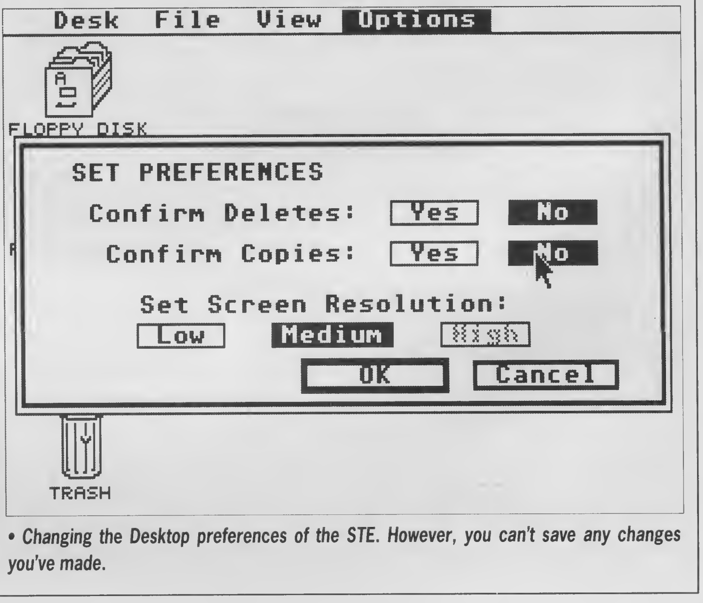
Having taken the machine back to the retailer, I was informed that there were software problems with the STE and it was suggested that a Power Pack games compilation be purchased along with the music, organiser and BASIC software. This I did – but with this additional expense I would have been wiser to purchase an Amiga.

I don't wish to direct all the blame at Atari, but to include a game with an Explorer Disk knowing that it was incompatible with their new STE is beyond belief.

Mr D Patrick, Holly Bank, York

We've stumbled into a rare old hornets' nest, haven't we? *Express*'s views on the STE's problems were, I hope, made very clear in last week's Comment column – that Atari was clearly in error when it allowed quantities of its new machine to reach the streets before software (and, by the sound of it, hardware) compatibility glitches could be ironed out.

The sheer quantity of rogue programs coming to light is certainly alarming, and doubtless many more names have yet to emerge. A word of caution, though. It may not be the case that ➤



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every program any user has fallen foul of is necessarily incompatible with the STE itself.

Now that the STE has a reputation for software problems, it is probably automatically taking the blame for a few individual faulty copies of program disks, even though a general compatibility mismatch with that package may not in fact exist.

Equally, it is easy to be misled into blaming software where it may be that an STE itself is a faulty model. For example, Uncle TechTip and myself have pooled our paltry intellects and are puzzled by Mrs Tompson's difficulty with *1st Word*. The fact that the same problem occurs with typing her name into games makes us wonder if she has in fact bought a machine with a faulty keyboard matrix.

One way to check this is to insert a spare floppy disk and call up Format from the File menu. The panel prompts you to type in a name for the disk before you format it. Use this as a test for those letters which are giving you problems. You don't actually need to format the disk – just backspace when you have filled the line, and try out further keys; when you have checked them, click on Exit rather than Format.

If you find wrong characters coming up during this operation, it will certainly mean you have a faulty keyboard. If so, send it back – the folks at Evesham Micros will certainly see you right and replace it.

Electric Distribution, supplier of *1st Word*, does admit to having received several enquiries about possible STE compatibility problems, and is checking the matter out. See the news item on page 5 for more details.

Please keep letting us know what problems you are encountering, and what responses you receive from suppliers and manufacturers. *Express* will stay on top of this story as it develops, and we will keep you up to date on compatible product versions as they become available.

Watch this space...

...and finally

You ask for information from Atari ST users who have had problems running software.

I have been successfully using the highly-acclaimed *Flight Simulator II* program by SubLogic – until this week, when I added the official Atari SLM804 laser printer to my system.

New selecting *Flight Simulator* just gives me those ST error-message bombs – the program refuses to run unless the printer is physically disconnected. This is a tedious and laborious process which one should clearly not have to do.

I have just written to SubLogic about the matter and am awaiting their reply.

Congratulations on a great magazine – but why leave the Atari ST's finest desktop publishing package *Calamus* out of your Shopping Express buyers' guide?

Paul Sutherland, Putney, London.

Just to prove that the STE is not the only machine that has ever suffered from glitches! I don't know exactly why *Calamus* failed to make it into ST Essentials, but you only have to turn to page 53 in this week's issue to see what we think of the package.

■ 8-bit anxieties

I heard about your Atari XE column so I went out to the newsagent and bought a copy of your magazine.

Wow! about 200 words all for us Atari 8-bit users! I'm sorry to say that although I'm pleased to see an Atari column, I can't see many 8-bit users buying your magazine regularly just for an amazing 200 words!

Mr Blake promises reviews. Where will he put them? Oh well, back to digitised music, 255-colour screens and Page 6 Software...

I must agree with Mark Baxter. Let's see pages dedicated to the lesser-known micro's like the Lynx, Dragon, etc. These machines are still going strong. Can anybody remember the Enterprise?

Now some good news for Keith Neal, who boasts constantly about software available for the MSX. Top UK companies like Ocean release all their latest games on MSX format. There's a catch. To get them you will have to travel to Spain! I expect Mr Neal will be saying 'Hola, desde la costa brava' in the next issue.

On the subject of the 8-bit pages being in black and white – not all 8-bits are limited to five colours and suffer from colour clash!

Finally, if you include a section dedicated to PD software in *Express*, don't forget the so called 'dead' micros!

Steven Wilds, Chesterfield

We'd like to think 8-bit users might also want to buy our magazine for the other 25,000 or so words that just happen to be kicking around between the covers.

But since our features and news space is open to new developments in any machine range, we hope we start receiving more 8-bit news – then maybe we can start to extend the coverage.

■ PCW at play

In reply to Alex McClure (Issue 57) as well as *Tomahawk* and *Strikeforce Harrier* flight simulations there is also *ACE Flight Simulator* (Cascade Games) for the Amstrad PCW.

We have a copy for our 8256 and it is really very good. We bought ours from A-Z Computer Services 01-744 1834, who can also supply a joystick/*ACE* package. *ACE Flight Simulator* is also on *PCW Challenge*, a games compilation: 0423 525325, £14.95.

Keep up the good weekly work, and perhaps a little more dedicated to the PCW?

Wendy Pitt, Ely, Cambs.

■ Second-hand woes

Well done Jim McAreavy, for highlighting a point that I was in the process of writing to you about, namely the price of second-hand kit in your free section.

Most people price their goods at the level set by existing advertisers – they scan the prices and adjust accordingly. I certainly did this when preparing to sell my CPC 6128, Glow monitor and software.

However, it soon occurred to me that your advertisers were asking excessive prices. The going rate seemed to be £250 upwards, and that was often with the CPC 464 model. Many of the prices drifted over the £300 mark.

Certainly, if I had £300, the prospect of some pre-owned and dated Amstrad kit, compared with one of the sexy Atari or Amiga computers, brand new and sparkling, offers little competition. I therefore concluded that the prices being asked were probably resulting in zero sales for the optimistic advertisers. I pitched my kit at £200. Still I felt this was a bit high, but it was by far the lowest price such equipment had been advertised for.

Did it get results, I hear you ask with bated breath? To a degree, yes. This 'bargain basement' price produced a flood of three enquiries over seven days. Makes you wonder what response the others received! The computer was actually sold via a supermarket advertising board, while I was waiting for my free ad to be printed. The price? £150, and yes, I feel I got a good price. The purchaser was happy and it made the cost of my new Atari a little more bearable.

I feel that adverts for most makes in your free section are generally overpriced and it will only be by advertisers feeding back to you with actual selling prices rather than relying on inflated asking prices, that a 'going rate' can properly be established.

Nonetheless, thanks for the facility – it is obviously much appreciated.

One final point, your paper seems nice and bright and shiny these days. What happened to the dear old enviro-friendly unbleached paper you used to use?.

Rick Billson, Staines, Middlesex

We suppose that advertisers failing to sell their goods will merely take further advantage of our free service and re-advertise at a lower price. 'Going rates' are, like you say, nothing to go by.

The old paper went because it wasn't 'nice, bright and shiny' and because it made all our expensive colour printing rather drab and pointless.

■ Chess loser

Why is it that chess programs all have ratings better than those who buy them? It doesn't make sense.

When reviewed in magazines, they are judged wrongly. Instead of looking at how the program fairs against humans, they seem only to give them acclaim when they can beat each another.

Most average-level chess players know that any piece of software is going to thrash them, whether or not it won three-nil against Deep Throbbo or Chessmobster 3000. Surely they should be judged on human terms.

James Hannigan, Selly Oak, Birmingham ■

■ On the relevance of Newtonian virginity

You printed some extracts from my letter to *Express* in issue 59/60 and Rob Ainsley replied by putting the boot into astrology. The problem is that the extracts from my letter were not dealing with astrology but science and the scientific attitude. Nor were they just my opinions, but those of many eminent modern physicists and scientific historians. Just say the word and I'll send you the proof.

This brings me to my only complaint about *Express* – you are so anxious to keep everything light-hearted and jokey that you don't appear to read many of your readers' letters properly or answer serious points in a serious way.

Apart from my own example, just look at your sloppy reply to Phil Croucher's perfectly reasonable comments about Newton; perhaps you could explain how the fact that he suffered from severe depression and died a virgin (or was so small when born that he could fit into a pint pot – I collect useless info, too) can possibly have any relevance to the validity of his views or his scientific reputation. Nor did Mr Croucher mention radio transmission from the planets so your crack about Capital Radio is off-target.

I do appreciate the humour and high spirits in *Express* – that's why I and thousands of others buy it; it's such a relief from the tedious gigabyte tomes cluttering up the newsagents' shelves, but there are times when a 'smart' answer isn't the right thing.

Anyway, a Happy New Year to you and all the staff and here's a tip Rob didn't put in his *8000 Plus* collection book: Read the letters first and write the answers afterwards!

Neil Foster, Prescot, Merseyside

...Or get someone else to answer them for you! Seriously though, Rob's recent biorhythmic analysis showed he would have treble criticals during January, so we packed him off for a short course in Mantra-chanting and lentils.

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COMPUTER CHAOS

A selection of computers which perpetrate disasters from the copious annals of Mel Croucher

WISCONSIN, USA

The Blue Cross and Blue Shield United Insurance Company hires Electronic Data Systems to build a $200 million computer system. Completed on time, it begins operation in early 1985. Four years later it is discovered to have given away $60 million in overpayments and duplicate cheques. By 1990, Blue Cross admits having to 'harness' the system with a net loss of 35,000 customers.
(*Business Week*)

AMSTERDAM, NETHERLANDS

The Stopera is Amsterdam's latest showpiece: a combined town hall and music culture centre. Computers are installed to count exit and entry of all workers and visitors to the centre, as well as to handle security, door locks and records of pedestrian traffic. Several members of the cleaning staff object to being held prisoner in cupboards by rogue computers, and a visiting family from Surinam are held hostage in the cloakrooms by the system. The cost of tweaking the computer comes in at £1,200,000.
(Piet van Oostrum)

SAN JOSE, USA

A brothel is raided by the Feds in the heart of California's Silicon Valley. They are not surprised to find records of more than 50,000 customers held on an Apple Mac, detailing names, addresses, billing methods, preferred sexual practices and in many cases a 'star' performance rating. This gives a whole new meaning to the expression 'spread sheets'.
(Backbytes, *Computing Australia*)

MILAN, ITALY

Customers are delighted to find a new 'Bancomat' terminal at their main bank branch operating after hours. Its screen presents the usual menu and accepts personal identification numbers, but then withholds the client's cash card telling them to report when the bank opens in the morning. Next day the 'Bancomat' has vanished, being an adapted personal computer screwed to the bank wall by electronic con artists. Of course, each customer demanding a new cash card has had their account cleaned out.
(*Communications Week International*)

BRUSSELS, BELGIUM

Wilfried Martens, Prime Minister of Belgium, is outraged to learn that his personal electronic files on the Cabinet's e-mail network have been hacked for at least three months. During a demonstration to journalists from *De Standard* newspaper, the hacker calls up classified data about the murder of a British squaddie by the IRA in Ostend.

But this is not what outrages the Belgian PM, it's the fact that during the demo, the paper witnesses their hacker meeting another 'burglar' and swapping Wilfried Martens' personal security code for nine letters, punctuation marks and cyphers.
(*Los Angeles Times* / *De Standard*)

ALBANY, NEW YORK STATE, UNITED STATES

The Nine Mile Point II nuclear power plant is situated near Oswego, and delivers 1,080 megawatts. Replacement fuel costs $350,000 every day that the system goes down, 'but accidents are impossible, due to triple-safety features at every stage of computer operation'. On Saturday night, an employee accidentally keys a two-way radio, and blows the brains out of the entire system.

Financial cost: only three days loss of power. Security costs: a total rethink of the phrase 'accidents are impossible', yet again.
(*New York Times*)

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NEXT WEEK

PCs: THE STORY CONTINUES

Our series on PC-compatibles continues with a look at microprocessors and memory

FIND YOUR WAY

The Routewise cartridge claims to transform a Psion Organiser into a route map. We go for a test drive

ULTRACARD UNVEILED

At last the Amiga has its own Hypertext language. What's Hypertext? Buy next week's issue...

PLUS

- The Shopping Express guide to buying a PC – 50 top models reviewed
- Tech Tips: technical advice with the human touch
- Letters: The best debate outside of Parliament

WITH

A column for your machine. Expert correspondents on ST, PC, Amiga, C64, Spectrum, Archimedes, BBC, MSX, QL, PCW, XE and CPC

AND

Six pages of up-to-the-minute news

STAY AHEAD WITH EXPRESS

Player Manager

BY DINO DINI

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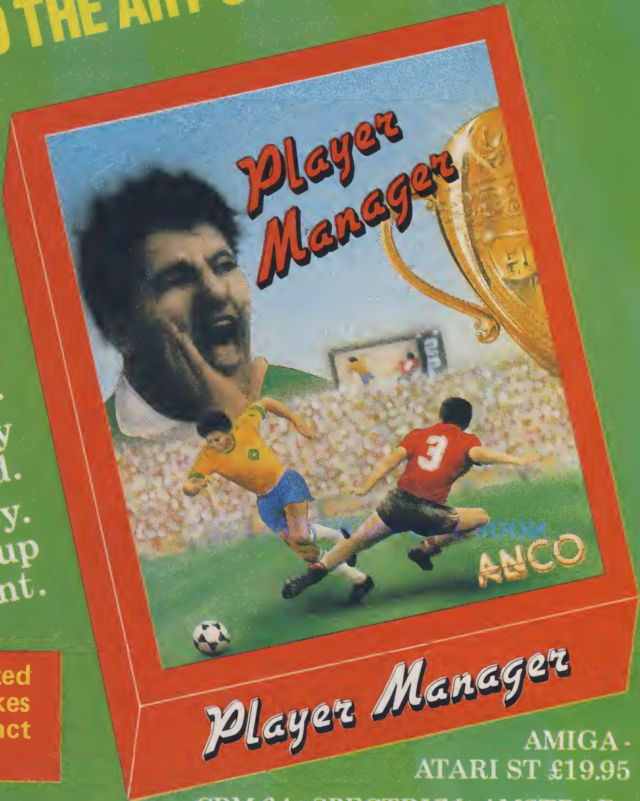

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PLAYING SKILLS OF THE MANAGER

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Devising winning tactics, acquiring players with right skills from the Transfer market and selecting a well balanced team is the test of his Managerial skills. When to hang his boots up is the toughest decision he has to make.

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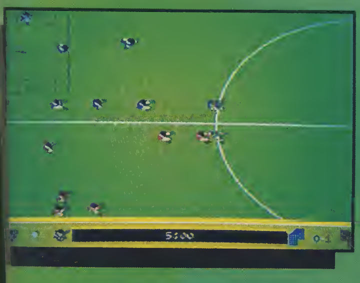

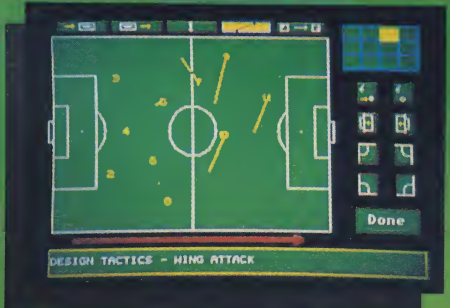

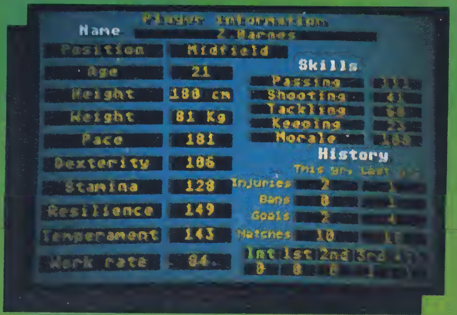

Player Information

Name Z.Barnes

Position	Midfield
Age	21
Height	180 cm
Weight	81 Kg
Pace	181
Dexterity	186
Stamina	128
Resilience	149
Temperament	143
Work rate	84

Skills

Passing	[illegible]
Shooting	[illegible]
Tackling	[illegible]
Keeping	[illegible]
Morale	[illegible]

History

	This yr.	Last yr.
Injuries	2	1
Bans	0	1
Goals	2	4
Matches	10	[illegible]

Int	1st	2nd	3rd
0	0	0	[illegible]

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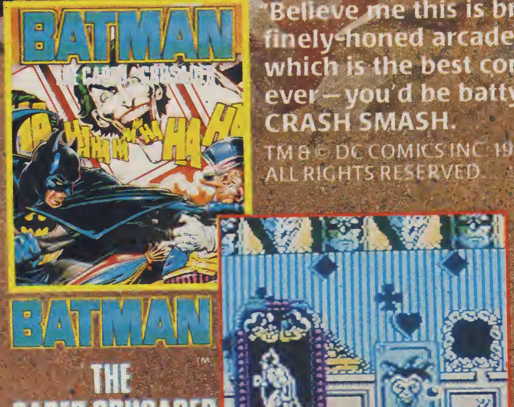
BATMAN
THE CAPED CRUSADER
BATMAN
THE
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"Believe me this is brilliant, a finely-honed arcade adventure which is the best comic licence ever – you'd be batty to miss it." CRASH SMASH.

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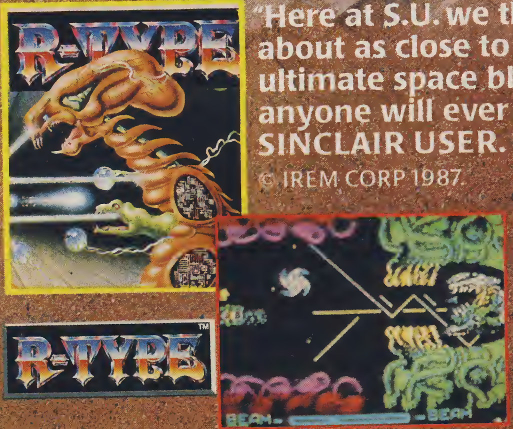
R-TYPE
R-TYPE
BEAM

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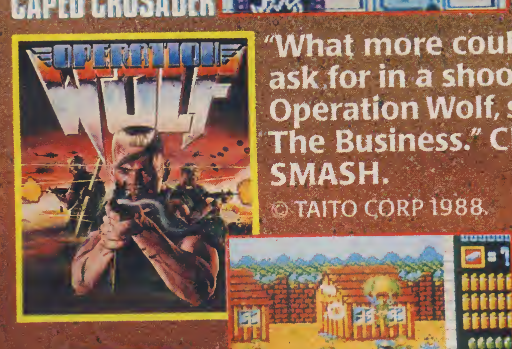
SIZZLER

A CRASH Smash


OPERATION WOLF
OPERATION WOLF
RESCUE THE HOSTAGES !
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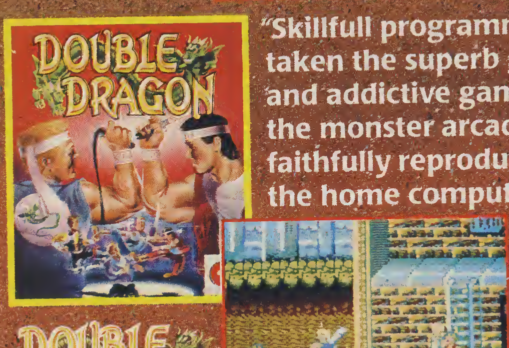
DOUBLE DRAGON
DOUBLE DRAGON
DOUBLE DRAGON
CREDITS 2

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